
THE FUTURE OF INTERACTIVE ENTERTAINMENT
UK EDITION MARCH 1999 £3.50
EDGE
DREAMCAST ■ PLAYSTATION ■ NINTENDO 64 ■ PC ■ ARCADE ■ ONLINE
GIANTS
THE MDK TEAM'S MASSIVE ATTACK
PLAYSTATION 2 DREAMCAST 1
SONY'S SUPERSUCCESSOR PREPARES FOR BATTLE
THE REAL VIRTUAL REALITY
PURSUING THE TRUE-TO-LIFE GAME EXPERIENCE
PREVIEWED: ALIENS VS PREDATOR • MARVEL VS CAPCOM
LE MANS • PARAPPA 2 • SAMURAI LEGENDS • DARKSTONE
REVIEWED: SEGA RALLY 2 • SMASH BROTHERS • MARIO PARTY
ALPHA CENTAURI • STREET FIGHTER ZERO 3 • DELTA FORCE


MY HERO
WEB SITE
HOT LIPS
MY WOMAN
BAD BOY
MARRY ME
HEART DESIRE
E MAIL ME
HUG ME
KEEP COOL
MY IDEAL
I HOPE
ITS LOVE
JUST SAY NO
TRUE LOVE
FOR KEEPS
ONLY YOU
YOU'RE FAB
HI PAL
I WILL
BABY DOLL
TAKE IT EASY
YOU WIN
I WILL
WEB SITE
BE MY ICON
REAL LOVE
FAX ME
LETS KISS
DON'T CRY
CUTIE PIE
I WON'T TELL
WHY NOT



This machine, Sony's successor to the all-conquering PlayStation, must be the most enticing-looking slab of videogaming hardware ever conceived. But then it's bound to be: this is an artist's impression, and artists work within the realms of the fancy aesthetic, often leaving practicality to fall by the wayside.

While the new machine's outward appearance remains enveloped in mystery, though, **Edge** has been able to track down firm details regarding its innards (see p06) – which are, after all, the most crucial aspects of this pivotal endeavour from the world's leading consumer-electronics manufacturer.

Sega's Japanese Dreamcast launch came and went without the hysteria that was expected from the appearance of such a capable piece of technology, and the somewhat muted reception it received can, to a significant degree, be attributed to the fact that today's videogamers have long been aware that Sony was holding a trump card up its sleeve.

Truth be told, mainstream consumers do not pine for a replacement for their beloved PlayStations (console game sales have been running at all-time highs thanks to the machine's existence), but Sony – until quite recently anything but a significant player in the videogames market – has found itself in a position where it cannot merely stand by the technological sidelines and look on.

The company's forthcoming console, which may not be as revolutionary as the original PlayStation was in the grand scheme of things, will no doubt be something worth watching.

Never underestimate the power of PlayStation? Let's face it, the first iteration of the legend is beginning to look like an antique. It's the follow-up whose power matters now.

Contacts

Editorial

Future Publishing
30 Monmouth Street
Bath, BANES BA1 2BW
Telephone: 01225 442244
Fax: 01225 732275
Email: edge@futurenet.co.uk
Recruitment: jgeddes@futurenet.co.uk

Subscriptions

Future Publishing Ltd
FREEPOST BS4900, Somerton
Somerset TA11 7BR
Telephone Customer Services:
01225 822510
Telephone Customer order line:
01225 822511
Fax: 01458 274378
Email: subs@futurenet.co.uk

People on Edge

Tony Mott editor
Caspar 'Clamber' Field deputy editor
João Sanches reviews editor
Jon Jordan writer
Jane Bentley production editor
Terry Stokes art editor
Darren Phillips designer
Nicolas di Costanzo Tokyo bureau

Clare Harper advertising manager
Hugh Owen classifieds
Jane Geddes recruitment 0171 447 3310
Advertising fax 0171 447 3399
Zoë Rogers senior technical coordinator
Lou Reffell production manager
Production fax 01225 732293
Sarah Orchard ad design
Amy Miller print services coordinator
Judith Green group prod manager
Rachel Spurrier pre-press coordinator
Simon Windsor, **Mark Gover**,
Jason Titley colour scanning
Chris Power foreign licenses
Jackie Garford publisher
Jane Ingham publishing director
Greg Ingham managing director

Colour reproduction

Colourworks Repro, Bristol
Phoenix Repro, Bath

Print

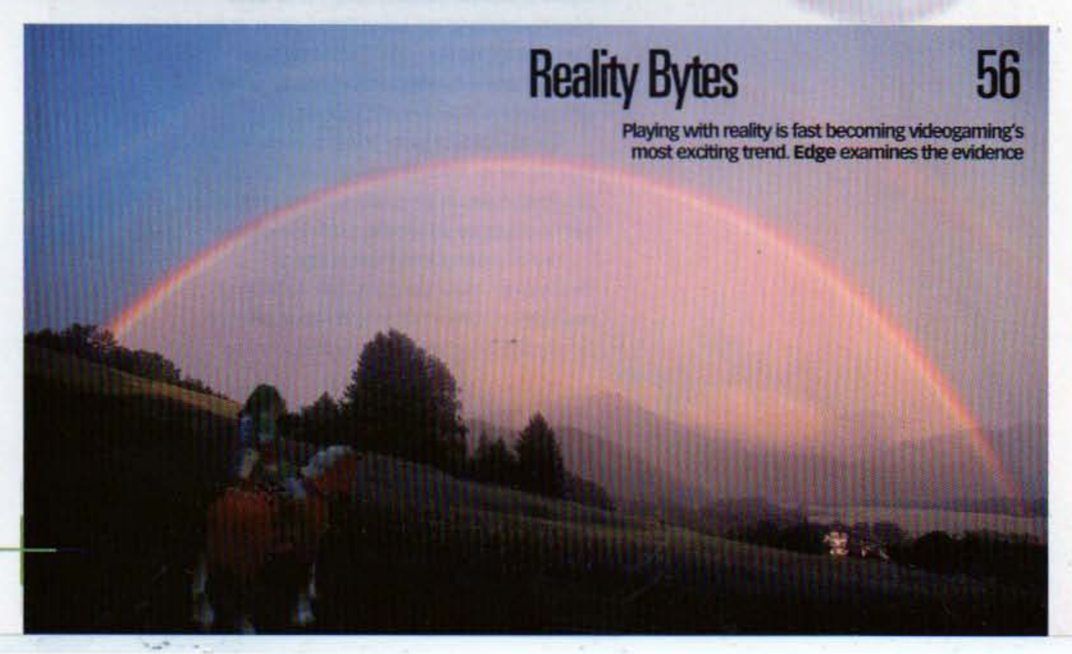
Cradley Print, Warley,
West Midlands
Edge is printed on Royal Press 90gsm

Production of Edge

Hardware Power Macintosh, G3, PowerBook, Quadra by Apple
Software *QuarkXPress*, Adobe *Photoshop*, Macromedia *FreeHand*, Pixar *Typestry* and Nisus *Writer*
Typography (Adobe®)
Formata light/**regular**/**medium**/**bold**
Vectora light/**bold**/**black**
Univers Ultra Condensed
Fifth colours: Pantone®
cover 293 sections 877



ABC (Audit Bureau of Circulation)



Cutting Edge

The latest news from the world of interactive entertainment

PLAYSTATION 2 SET FOR DECEMBER DEBUT

As dev kits finally begin shipping to premiere developers, a 1999 release date for Japan is confirmed



Probably the most powerful videogames brand in the world. Sony has yet to reveal a new name or logo for its new format, but it won't be 'PlayStation 2000'

Reliable **Edge** sources have confirmed that Sony's PlayStation successor will reach the Japanese market before the end of this year. On December 21, consumers in Japan will be able to purchase the machine at ¥23,800 (£125). (Sega's Dreamcast currently retails in Japan at ¥29,800 – approx. £155.)

As dev kits are eventually making their way into the software development community, tantalising details are emerging which pitches the machine at around 20 times the power of the original console. Despite a general air of denial and avoidance, several **Edge** contacts have been persuaded to put forward suggestions of the new console's power. In terms of 3D performance, current estimations put PlayStation 2's realtime rendering potential at 8 million polys per second – or around 100,000 polys per frame at 50 frames per second. *Zelda* on the Nintendo 64, meanwhile, shifts 2-3,000 polys per second at that framerate, which underlines the rather hefty 3D rendering potential of Sony's new kit.

Some coders have claimed that Sony has told them to 'work towards a 500MHz CPU' and expect MPEG2 decoding, while also revealing that Sony engineers have placed more emphasis on hardware special effects this time around, which could, for example, mean the inclusion of an Alpha Channel to handle transparency, therefore freeing up space for a more comprehensive colour palette. Early rumours concerning the use of a NURBS-based graphics architecture have been quashed, however, so, like its predecessor, PlayStation 2 will be a dedicated polygon-pushing engine.

As for exact specs, Sony is understandably remaining tight-lipped, and developers have been silenced by strict NDAs. As one industry figure told **Edge**, "It's the best-kept secret in the industry at the moment. Everyone's disclaiming any knowledge of anything. The only thing I'd say is that it's fucking cool." Another developer furtively admitted, "I actually have Sony of Japan here today, but I am so sworn to secrecy that I cannot tell you anything at the moment."

Edge has received confirmation that Core Design will be receiving a dev kit in March (although that news wasn't even from Core itself), but details of other committed European codeshops are thin on the ground. In Japan, Namco is again believed to be working closely with Sony, and a brace of titles from the *Ridge Racer* developer is expected to closely follow the machine's late-1999 debut.

Meanwhile, early speculation concerning the employment of a DVD drive in PlayStation 2 appears to have proved accurate. Although SCE has yet to make any official confirmation, it has dropped significant hints to developers that the new format will be backwardly compatible, ruling out the use of a proprietary format such as Dreamcast's GD drive. As DVD drives can also handle CD-ROMs, the increasingly popular technology would be the perfect storage format for a PS sequel.

Back to the future

PlayStation 2's backwards compatibility – almost certainly something achieved in software via emulation – would no doubt appease the installed PlayStation worldwide userbase of nearly 50 million. Furthermore, an emulation solution to backwards compatibility would potentially allow PS2 owners to run original PlayStation software in an enhanced form, in much the same way *UltraHLE* (see p8) allows PC owners to run Nintendo 64 games in much higher resolutions than is possible on the genuine console hardware.

Sony appears to be working fiercely towards ensuring a level of brand loyalty that no console manufacturer has ever previously managed. And, if early word is to be believed, it's not simply consumers that Sony will be romancing: a purportedly similarly internal architecture structure (CPU and GTE working in tandem) could allow developers a smooth transition between the old and the new technology.

Edge will feature more PS2 developments next month, including Sony's plans for Europe. 

An artist's impression of the new architecture. It's likely that Sony will retain its controller-port standard in order to ease the consumer transition between old and new hardware

DREAMCAST: TOO LITTLE, TOO EARLY?

Despite healthy console sales in late '99, Sega's 128bit machine has failed to grip many UK early adopters



With the dust now settled following the Dreamcast launch in Japan, it's clear that the console's honeymoon period has come to an end. While Japanese sales of Sega's great white hope as of the end of December '98 reached a reasonably impressive 240,000 (which accounted for near-sellout status), the problems with software and manufacturing delays point to one increasingly clear fact: Sega may have launched too soon. A March '99 release would have allowed time to build a strong line-up of titles with which to make a serious impact.

The unfinished feel of both *Sonic Adventure* and *Sega Rally 2* (the console's two most important titles to date) has left many early adopters with bitter tastes in their mouth. Part of the problem lies with Sega's insistence that both Dreamcast and Naomi are capable of outperforming its Model 3 coin-op teehnology, when so far that has proved to be patently untrue.

The disenchantment of import gamers in the UK should not affect Dreamcast's overall standing, of course, and those willing to wait for the format's official Euro debut in September will be rewarded by the appearance of an improved version of *Sonic Adventure*.

Edge has witnessed early renditions of some of the western launch games, and has high hopes for their quality. As far as games leading the march in Japan go, however, there's currently one title standing head and shoulders above all others – *Shenmue* (see p32). If Sega can encourage more titles with a similar level of visual impact, the threat of Sony's upcoming format may be diminished.

N64 EMULATOR THRILLS PC GAMERS

Windows users rush to download N64 ROMs as breakthrough emu *UltraHLE* emerges

The following excerpt from a README.TXT file contains information that could change the face of console gaming forever:

'Epsilon and RealityMan are very proud to introduce you to what we think may well be the emulation release of 1999 – *UltraHLE*. *Ultra 64 High-Level Emulator* is a Nintendo 64 Emulator for *Win95/98* and *WinNT*-based PC systems. Taking full advantage of Pentium processors and 3Dfx (Glide) graphics cards, this emulator enables you to play some of the biggest releases to date that the Nintendo 64 has had. Games such as *Zelda: Ocarina of Time* and *Super Mario 64* run superbly on PII 300MHz systems. But PII 2XXMHz systems can run this emulator just as well with Voodoo1 based technology, and also with Voodoo Banshee.'

Picking up the trail

Only hours after the emulator's release on January 28, 1999, *UltraHLE*'s authors removed the downloadable file, and closed their Website. However, the small size of the compressed executable – around 220K – had allowed hundreds of visitors to access the file. Mirror sites were established with astonishing speed, while the emu code was posted to numerous Usenet newsgroups.

Epsilon and RealityMan later issued another statement, attempting to assure readers – in particular, those working for Nintendo – that *UltraHLE* was not intended as an instrument for piracy. Indeed, their specified reason for beginning the project was, 'to see if it could be done'. They also claimed that the project was effectively discontinued.

Promoting piracy

Nintendo was quick to issue a response, and is apparently examining the option of filing a lawsuit. "Emulators such as this are illegal," said NOA spokeswoman **Beth Llewelyn**. "They obviously had to circumvent our security chip. It promotes continued piracy."

Coming so soon after Sony's dispute with Connectix over its Macintosh *Virtual Game Station* software (see **E**68), Nintendo's words have alarmed the emulation fraternity. Many retrogaming enthusiasts have been quick to damn the release of *UltraHLE*, claiming that it jeopardises the future of all emus. With the combined weight of Sony and Nintendo, there's a danger that legal precedents set by the Atari-vs-Coleco and IBM-vs-Compaq cases, which effectively legitimised the emulation of computer hardware, could be overturned.

Manageable downloads

UltraHLE's creation has far darker implications than Connectix's PlayStation emulator. While PS games must be purchased for the *Virtual Game Station*, N64 ROMs are relatively manageable downloads, and therefore widely available on Usenet. Websites are easily located and closed by industry bodies such as the IDSA and ELSPA, but for every Homepage erased another replaces it.



The sharp definition of Princess Zelda and Link – at 800x600 with Voodoo 2 – is an eye-opening sight. Nintendo, however, is unimpressed by *UltraHLE*'s emu capabilities




All of these shots illustrate the power of Epsilon and RealityMan's *UltraHLE*. As detailed as the images may look, they're actually taken from the emu running at 640x480 with a simple 2Mb Voodoo 1 card





Certain games are obviously enhanced by higher resolutions, but games that use sprites – such as *Mario Kart*'s bitmap racers (left) – can look scruffy. On a high-end PC, an increase in framerate impresses most

SONY SUES

Following the public unveiling of Connectix's PlayStation emulator, *Virtual Game Station*, at Macworld '99 (see **E**68), Sony has finally reacted. It filed a lawsuit at San Francisco District Court on January 27 claiming a violation of its intellectual property rights. Sony also attempted to block sales of the $50 software from Connectix's Website. First blood went to Connectix, however, as the court rejected a temporary restraining order. This leaves the way open for an expected retail ship-out during February. Sony's original claim has yet to be heard in court.

Disputing that Sony's intellectual rights have been breached, Connectix CEO, **Roy McDonald** commented, "Reverse engineering is not illegal." He also claimed that safety measures incorporated into the software prevents the use of pirated games. A patch that overcomes these measures has already been posted on the Internet.

The *Virtual Game Station* emulates Sony's $129 machine impressively on G3 systems, and a PC version is rumoured to be in the pipeline.

The bigger picture

The existence of N64 'backup' units such as the Z64 and Doctor 64, and used by many for piracy, means that virtually every game released is posted on the Internet literally hours after its release. One source even went so far as to claim that over three terrabytes (3,000,000Mb) of N64 ROM images changed hands on Sunday, January 31. This figure may well be exaggerated, but the fact remains: Nintendo is unfairly and unlawfully losing out.

Edge will freely admit to admiring *UltraHLE* as a piece of coding. To emulate the N64 hardware to the extent that it does – from sound chip to 100MHz RISC processor – is an astounding achievement. The issues and complexities that it introduces are less palatable.



While the achievements of *UltraHLE* are remarkable, the legal issues involved are complex

VOODOO3: SPEED OVER IMAGE QUALITY

Leading graphics hardware specialist 3Dfx launches V3 chipset

3Dfx has lifted the lid on its latest technology: Voodoo3. In a recent demonstration **Edge** was shown the chip running Activision's *Heavy Gear 2* as well as a *Wipeout*-style 3D racing game called *Mars Maniacs*.

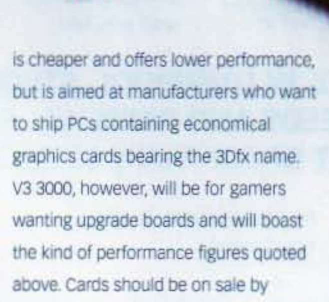
Despite the new hardware, *Heavy Gear 2* looked pretty conventional, lacking trilinear filtering and clumsily displaying distinct lines where levels of texture detail dropped away. *Mars Maniacs*, by Australian Church of Electronic Entertainment, was more of an eyeopener. With the Voodoo3 chip capable of rendering up to seven million polygons per second and a fill rate reaching 360 megatexels per second, it ran at a breakneck framerate without pop-up and very little fogging.

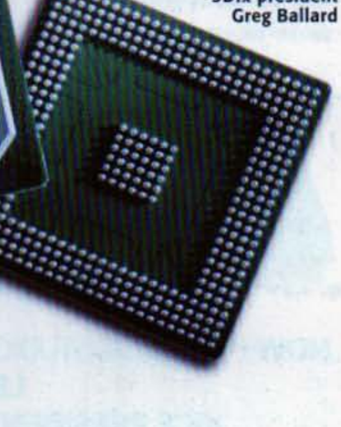
The main criticism facing Voodoo3, however, is its continued 16bit colour rendering and limited texture sizes. Other manufacturers like S3 and Matrox have been moving to 32bit colour pipelines and handle textures far larger than the 256x256 maps offered by V3.

Speed boost

3Dfx president **Greg Ballard** defends the chipset, arguing that speed is the key issue, with picture quality taking second place to framerates. "The better trade-off is higher performance rather than image quality," he says. "We do believe in raw power – that's what we think gamers believe in."

Voodoo3 will initially ship in two flavours: 2000 and 3000. The 2000 chip is cheaper and offers lower performance, but is aimed at manufacturers who want to ship PCs containing economical graphics cards bearing the 3Dfx name. V3 3000, however, will be for gamers wanting upgrade boards and will boast the kind of performance figures quoted above. Cards should be on sale by mid-April starting at around £150.





Voodoo3 will be the fastest graphics chip on the planet, according to 3Dfx president Greg Ballard

New generation hardware

Already, Ballard is hinting at a further iteration of the technology in the form of Voodoo3 4000, which may move to 32bit colour rendering. Further down the line, 3Dfx will be moving to a new generation of hardware altogether. According to Ballard, engineers are at work on 3Dfx's next technology and this chipset will further address quality issues such as texture sizes – he would not reveal the name of the next chips, nor their likely release dates. **Edge** is certain it can be no later than this time next year.



While speed is favoured over picture quality, the Voodoo 3 card pumps polys capably enough to prevent any pop-up in games like *Shogo* (above)

S3 AND SAVAGE4

While Voodoo3 is restricted to 16bit colour and 256x256 pixel textures, S3 has unveiled its new Savage4 processor. The most outstanding feature of the new chip is its support for massive in-game texture maps thanks to S3's texture-compression routine which not only enables enormous textures to be stored in PC system RAM across the AGP bus, but is also supported under Microsoft's DirectX 6.

S3 showed **Edge** some specially created *Unreal* levels running on Savage4 beta silicon. With textures up to 1,000x1,000 pixels they looked absolutely stunning. Like Voodoo2, Voodoo3 and nVIDIA's RIVA TNT, the Savage4 also supports dual texturing which is particularly handy for reflective and translucency effects.

SONY JUMPS IN AS PSYGNOSIS SHAKES DOWN

Recent turbulence at development giant climaxes as staff depart for thirdparty ventures

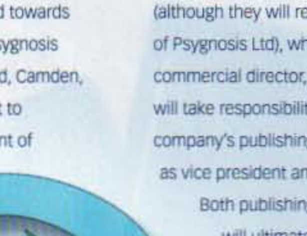
Sony Computer Entertainment has announced that it is effectively taking control of videogame development at Psygnosis.

SCE bought the Liverpool-based company in 1993, but allowed it to retain a strong sense of independence – even permitting the development of games on other platforms. However, a string of unsuccessful, critically mauled releases, including *Rascal*, *Blast Radius*, *F1 98* and *Psybadek*, have no doubt contributed towards a change of heart. Now Psygnosis studios in Liverpool, Stroud, Camden, Leeds and Paris will report to Juan Montes, vice president of software development at SCEE (although they will remain part of Psygnosis Ltd), while Psygnosis' commercial director, John Bickley, will take responsibility for the company's publishing operations as vice president and general manager.





While recent titles including *Blast Radius* (left) have been critically slated, Psygnosis' future is not entirely bleak. *Rollcage* (centre), reviewed this issue, offers absorbing gameplay which rivals the previous *Wipeout* games (right)



Both publishing and development will ultimately fall under the control of SCEE CEO Chris Deering. Gary Johnson, managing director of Psygnosis since June, 1998, has left the company 'to pursue other interests.'

NOW PSYGNOSIS STUDIOS **IN LIVERPOOL, STROUD, CAMDEN, LEEDS AND PARIS** WILL REPORT TO JUAN MONTES, **VICE PRESIDENT OF** SOFTWARE DEVELOPMENT **AT SCEE**



Wayward bound

Considering its mediocre games, the financial loss reported last year, the closure of two UK studios, and the scaling down of activities at the San Francisco office, some sort of intervention is perhaps long overdue. Indeed, radical changes will need to take place at Psygnosis if the company is to remain a potent force in the development community. To complicate matters, the last few months have seen several staff leave the Stroud studio to join Bristol newcomer Wayward Design (set up by ex-Psygnosis employees), while *Wipeout* designers Nick Burcombe and Lee Carus have deserted the Liverpool HQ along with four others to set up a new outfit named Curly Monsters.

Creative disillusion

Although Wayward would not comment on what drove its new staff away from the veteran publisher, Curly Monsters cites creative disillusion as a major contributing factor. **Andy Satterthwaite**, previously a producer on *Colony Wars* and *Wipeout 2097*, asserts, "Many of us, due to our knowledge and experience, had been promoted to management – but that meant we were moving away from hands-on game development which was the bit we loved. The main advantage of setting up Curly Monsters is that it's fun again, and it also helps to know that doing the hard work and late hours is for our benefit, and not just for the profits of a huge organisation."



Breakaway factions

In some respects, this situation is characteristic of the whole industry rather than just Psygnosis. For many, the only way to retain links with the design side *and* make proper money is to set up a thirdparty studio. Eighth Wonder, Mucky Foot, Fireaxis and Lionhead were all set up by creative staff, frustrated by working in the stifling, beaurocratic environment of a big corporation.

However, it's clear that there were specific problems at Psygnosis. As Satterthwaite points out, "Those of us still at the development end were getting frustrated by the continuing pressure of ludicrous deadlines on titles which were becoming little more than mindless cash-generating sequels."

Positive outlook

Fortunately, though, Psygnosis seems to have taken stock of internal criticisms and returned to its strengths: well-designed, visually arresting titles with sound ideas behind them. *Rollcage* (see p68) looks set to be a huge success for the company, as does *Lander* (produced by staff from the Manchester studio closed down last year). If Sony is seeking to rebuild Psygnosis on a management level, at least it knows there is plenty of creative juice left beneath corporate crust.

SUPER MODEL NAOMI TO POWER FERRARI

New AM2 arcade game is first to use multiple Naomi boards in tandem

Rumours surrounding a 'Super' Naomi board have recently intensified following the announcement that Yu Suzuki's next arcade project, entitled *Ferrari F355*, will use four Naomi boards (plus a three-monitor display).

While at ATEI '99 (see Arcadeview, p110), **Edge** investigated the technical validity of such a claim. "Oh, yeah, we always said that our hardware is scaleable and it certainly doesn't stop with what Naomi can do," confirmed VideoLogic's **Trevor Wing**. "It's possible even now to use multiple chips but whether they [Sega] choose to do that or not is their decision."

And while Sega wasn't prepared to reveal details concerning developments using multiple Naomi boards, a spokesperson for the company did admit to being aware of the possibility of using combinations of either two, four, eight or 16 boards together.



Expect Yu Suzuki's officially licensed *Ferrari F355* title, powered by four Naomi boards, to look *very* good. (Perhaps not quite *this* good, though)

If *Ferrari F355* is indeed using four Naomi boards, the game could boast a resolution of 1,280x960 while displaying eight million polygons onscreen. At the time of going to press, the game is not expected to appear at AOU other than in video-only form. Furthermore, given the demanding technical requirements, a Dreamcast conversion currently looks unlikely.

NEO GEO GOES COLOUR

As the portable games market in Japan prepares for a busy year, SNK upgrades its latest contender

Following underwhelming sales of the Neo Geo Pocket, SNK has announced a colour version of its portable games machine, scheduled for release in Japan on March 19. The monochrome unit suffered at the hands of Game Boy Color which outsold it over the Christmas period by a ratio of 18:1.

The improved hardware for the colour version features the same 45x48mm-sized screen as the 16bit original and displays 146 colours from a total palate of 4,096. The only real difference is that the handset is slightly larger and thicker. Black-and-white software will also be compatible with the hardware, which will display 20 colours onscreen. The NGP Color will also offer 40 hours' playing time, double that of the Game Boy Color, and will retail at ¥8,900 (£47) compared to ¥6,800 (£35) for the original.









The fledgling Neo Geo Pocket colour range includes *King of Fighters 2*, *Baseball Stars* and *Pocket Tennis 2*

New software support

The other perceived reason for the Neo Geo Pocket's failure has now been addressed, too: SNK announced new titles from developers such as Atari, Sega, Capcom and Taito. Fifteen colour games will be simultaneously released with the machine, and SNK will aggressively trail the launch with a 'Play it' campaign running from January 23 until March 14 in 70 key stores around Tokyo, Kyoto and Osaka.

Both versions of Neo Geo Pocket can be linked up to Dreamcast via a separate link cable. Some of the colour software, such as *King of Fighters 2*, is known to use this capacity, although at present it is not known exactly how. According to SNK, both versions will also support the Wireless Communication Unit, which allows up to 64 gamers to play simultaneously.

CUTTING EDGE

ION Storm court order
Following an investigative feature in the *Dallas Observer*, id offshoot ION Storm has served a subpoena on the journalist concerned, Christine Biederman, demanding she reveal her sources. The *Observer* has, in turn, filed a motion to quash the subpoena. Next issue, **Edge** travels to ION's Dallas headquarters to bring you all the facts.

Sony pocketed
With the market for portable game units at an all-time high, Sony's PocketStation immediately sold out when released in Japan at the end of January. However, sceptics have been quick to point out that only 60,000 units were available despite Sony delaying the launch for six weeks to allow more production time.

Saving Psygnosis
Despite the internal turmoil at Psygnosis (see opposite), there is light at the end of the tunnel with the announcement that *Wipeout 3* has been scheduled for a November release. It will feature eight new circuits as well as three new teams and enhanced game modes.

Sega gets the blues
Despite the colour orange having become almost synonymous with the format to date, Sega has decided to re-brand its Dreamcast logo a powder blue for its appearance in Europe, giving it an oddly feminine feel. No news yet on what plans are in store for the US...

Virgin looks to Evolva
Flushed with its independence, Virgin Interactive fought off stiff competition to win the bidding war for Computer Artwork's *Evolva*. The 3D realtime action-strategy title uses A-life technology to create an environment in which the four main characters evolve through the game. Reports that it will be a PlayStation 2 launch title remain unconfirmed, but the PC version is expected to be released later this year.



Evolva

PRESCREEN

EDGE PREMIERES INTERACTIVE ENTERTAINMENT'S FRESHEST FACES

Does gaming's future belong to Microsoft?

The PC game trounces the opposition with innovation

With Sega's move now made and Dreamcast yesterday's news, all eyes have turned to Sony in anticipation of its PlayStation successor.

Not since the arrival of the 'PS-X' and the Saturn has there been such keen interest in a new console. It's understandable: Sony's next machine is certain to be – *has* to be – a stunning piece of kit. But, rolling steadily along in the background is the Wintel platform. Right now, for the serious gamer, there's only one machine to own: a PC.

Just at the moment when Dreamcast was wowing the world with its two million polygons per second performance, 3Dfx announced the third iteration of its Voodoo chipset – claimed to push out three times more triangles than Sega's machine. NVidia's Riva TNT 2 is similarly specced, while SoundBlaster's Live! delivers '3D' sound, and force-feedback controllers are commonplace. Of course, there is a price, but the specifications and performance available for a careful £1,000 outlay are increasing exponentially. The base processor available is now a 300MHz chip, with Katmai/Pentium III soon to arrive at 500MHz and beyond.

As ever, though, hardware, however powerful, is nothing without software. With Dreamcast still an unknown quantity and PlayStation 2 in the distant future, ambitious game developers have turned to the PC as their platform of choice. Even *GoldenEye*'s most ardent fans are stunned into silence by the absorbing delights of *Half-Life*; the goalposts have shifted.

Looking into the year ahead, there's little doubt where the innovations are happening. *Black and White*, *Kingpin*, *Warzone 2100*, *Quake III: Arena*, *Galleon*, *Homeworld*, *Wild Metal Country* and *Outcast* are all hugely desirable PC titles (often eliciting a misguided 'imagine the Dreamcast version' from pundits), pushing back the technical and conceptual boundaries of videogaming. The division between the traditional PC and console markets is slipping further out of focus by the day, as talented videogame programmers migrate to Microsoft's nest.

This issue's featured prescreen is *Giants* (see p42), created by Planet Moon Studios. The ex-Shiny Entertainment team was also responsible for developing *MDK*, a similarly innovative PC title. Along with the list of other leading-edge Wintel games, *Giants* is testing out fresh concepts and new techniques which are not commonly being seen on the consoles of today – or tomorrow. The future, it would appear, has Intel inside.





When all around it are losing theirs, the PC platform is consistently producing innovative titles. From left: *Black and White*, *Kingpin* and *Galleon* eclipse the sequel sickness slighting consoles

Edge's most wanted

The latest games stoking **Edge**'s fire







Wild Metal Country	Um Jammer Lammy	Driver	Crazy Taxi
(PC) DMA Design	(PS) SCEI	(PC/PS) GT	(Arcade) Sega
It's from DMA, it boasts advanced dynamics, lovely visuals, and wild futuristic tank-like vehicles intent on turning each other into shrapnel. And no sheep.	Despite the fact that Parappa has been replaced by teen rockette Lammy, the sequel to last year's rappin' rhythm action game is irresistible.	Soon to be released on PC and PlayStation, Reflections' promising title will hopefully marry solid gameplay to its evidently accomplished physics.	Even in half-finished state (see ATEI report, p112), Sega's latest Naomi project offers addictive racing action with a wickedly enticing twist.

Index

PRESCREEN ALPHAS

RACING IS A RECURRING THEME ONCE MORE, WHILE SEGA UNVEILS A NEW DC PROJECT

UNDERCOVER

FORMAT: **DREAMCAST** DEVELOPER: **SEGA**























Announced at the beginning of February, *Undercover* is a 3D adventure set in Tokyo, 2025. As detective Kai Samejima, your task is to solve the mystery surrounding the plot, which includes frequent confrontations with members of the Chinese and Russian Mafias. The character animation may need some work, but a dynamic camera system hopes to follow the action, and apart from the eastern setting, the game is possibly best described as a mixture of *Metal Gear Solid* meets *Resident Evil*. Expect more info next issue.

SPACE GRIFFON

FORMAT: **DREAMCAST** DEVELOPER: **PANTHER SOFTWARE**













Continuing the Japanese affection for all things mechanoid, last witnessed in **E**68's *Frame Gride* and *Digital Mission*, Panther is upgrading its robo-shoot 'em up *Space Griffon*. Originally outed on the PlayStation, Dreamcast's poly-pushing abilities should make for a slinkier experience than before. Six robots will be available, with each morphing into three shapes for cruise, assault and combat modes. Reports suggest it will be more action-oriented than before.

FINAL FANTASY VIII

FORMAT: **PLAYSTATION** DEVELOPER: **SQUARE SOFT**







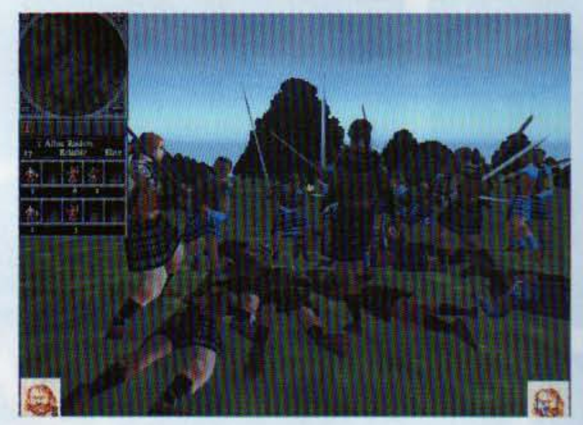


Released in Japan by the time **Edge** hits the streets, *Final Fantasy VIII* is guaranteed to be one of the biggest games of the year, with sales measuring in millions. Square has also included PocketStation support in the shape of a downloadable minigame called *Odekake Chocobo*, allowing even more time to be spent interacting with Squall Leonheart and friends. There's still no news of US or European release dates, though.

BRAVEHEART

FORMAT: **PC** DEVELOPER: **RED LEMON STUDIOS**

Regular **Edge** readers will remember this as *Tartan Army*, but while the name has changed, the game's essence remains the same (albeit now named after Mel Gibson's depiction of the Scottish Wars of Independence in the 13th Century). Due for release in March, this strategy title sees you controlling one of 16 clans in the hope of becoming king of Scotland and defeating the English.



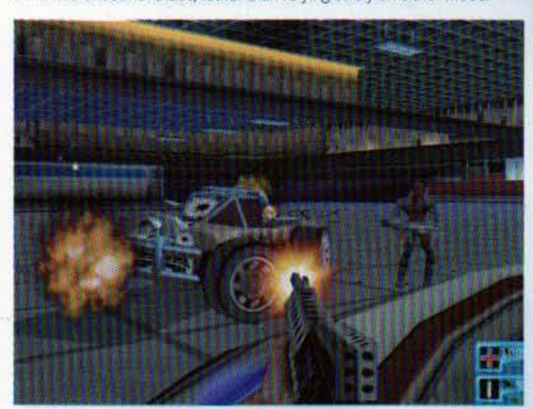




REDLINE

FORMAT: **PC** DEVELOPER: **ACCOLADE**

More *Redline* shots appear as the title nears completion. Graphically, things have moved on since **Edge** last saw this intriguing offering. The ability to use any of the game's vehicles as well as wander around on foot remains, and Accolade is keen to stress that all missions require a mixture of both of these, rather than relying solely on either mode.











CLAN WARS

FORMAT: **PC** DEVELOPER: **DMA DESIGN**









Looking closer to home for inspiration this time, Dundee-based DMA has created *Clan Wars*, another Scottish slaughterfest of epic proportions. The basics are simple: build yourself a castle, then storm the other clans before they storm you. Armies of around 200 or more make bloody murder, and siege warfare – with ballistas, trebuchets and catapults – features heavily.

VIGILANTE 8

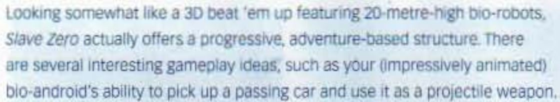
Perhaps appropriately, this N64 edition of the previously PlayStation-only fun car-battling title is an almost identical copy of the original (12 cars, ten tracks), but it does have a few additions of its own. As such, expect fourplayer deathmatch, twoplayer 'quest', and three singleplayer (survival, brawl and smear) modes to boost the game's lifespan. 4Mb Expansion Pak support, meanwhile, should ensure crisp 640x480 visuals. *V8* is currently scheduled for March.





SLAVE ZERO

FORMAT: **PC** DEVELOPER: **ACCOLADE**



Looking somewhat like a 3D beat 'em up featuring 20-metre-high bio-robots, *Slave Zero* actually offers a progressive, adventure-based structure. There are several interesting gameplay ideas, such as your (impressively animated) bio-android's ability to pick up a passing car and use it as a projectile weapon.











V-RALLY 2

FORMAT: **PLAYSTATION** DEVELOPER: **INFOGRAMES**



Understandably, 1997's *V-Rally* is showing its age, particularly with Codemasters' *Colin McRae Rally* currently wooing the rally gaming public. Enter this sequel, then, which graphically, at least, is looking much improved. Naturally, the cars have been updated, too, and the selection includes, among others, last season's Peugeot 306 Maxi model (seen here). It will be interesting to see whether the physics model has been updated along with the obvious visual ameliorations.









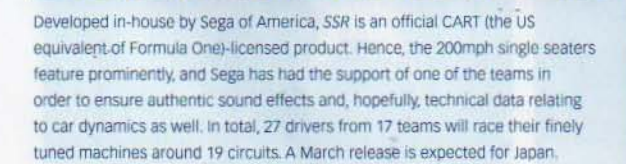




SUPER SPEED RACING

FORMAT: **DREAMCAST** DEVELOPER: **SOA**





Developed in-house by Sega of America, *SSR* is an official CART (the US equivalent of Formula One)-licensed product. Hence, the 200mph single seaters feature prominently, and Sega has had the support of one of the teams in order to ensure authentic sound effects and, hopefully, technical data relating to car dynamics as well. In total, 27 drivers from 17 teams will race their finely tuned machines around 19 circuits. A March release is expected for Japan.



RESIDENT EVIL 2

Nearly ready to terrorise PC owners everywhere, Capcom's hugely atmospheric and shocking tale of zombies and other horrific, rotting flesh entities should make it across without much difficulty, nor indeed, much change. If so, the episodical nature of the proceedings (rather than one – possibly two – longer narratives), may not be to everyone's agreement, although **Edge** suspects that this is unlikely to seriously bother the PC market.





BOMBERMAN 2

FORMAT: **NINTENDO 64** DEVELOPER: **HUDSON SOFT**

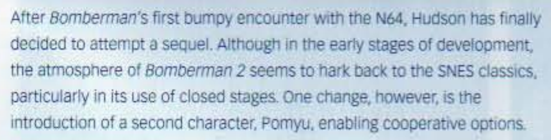












After *Bomberman's* first bumpy encounter with the N64, Hudson has finally decided to attempt a sequel. Although in the early stages of development, the atmosphere of *Bomberman 2* seems to hark back to the SNES classics, particularly in its use of closed stages. One change, however, is the introduction of a second character, Pomyu, enabling cooperative options.

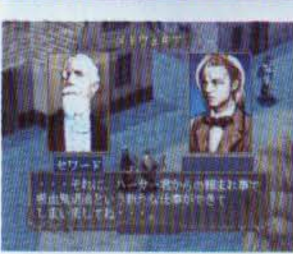
VAMPIRE

FORMAT: **PLAYSTATION** DEVELOPER: **ARTDINK**

It's rare for **Edge** to feature many Japanese-developed RPGs (excepting output from the likes of Square and Enix), but this new effort from Artdink presents something more than the usual elves-and-orcs fantasy fare. PocketStation compatible, the game may eventually make it to the west thanks to its evergreen player-versus-the-undead themes.











DRIVER

FORMAT: **PLAYSTATION/PC** DEVELOPER: **REFLECTIONS**

Following on from the PlayStation shots in **E**67, here is the current state of the PC version of Reflections' eagerly awaited driving endeavour. Details about specific game structure are still unavailable, and given the title's nearing release, **Edge** doesn't expect any further information until review code arrives.











QUAKE II

The PC market has it, Mac owners have played it, PlayStation disc drives across the land will soon be spinning it, and it was only a matter of time before *Quake II* was crammed into an N64 cartridge. With the chief coding duties undertaken by the individual responsible for bringing *Duke Nukem* and the original *Quake* to Nintendo's 64bit machine, this promises to be at least technically proficient. The final cart should appear at Easter.

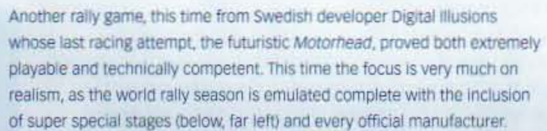




RALLY MASTERS

FORMAT: **PC/PLAYSTATION/NINTENDO 64** DEVELOPER: **DIGITAL ILLUSIONS**





Another rally game, this time from Swedish developer Digital Illusions whose last racing attempt, the futuristic *Motorhead*, proved both extremely playable and technically competent. This time the focus is very much on realism, as the world rally season is emulated complete with the inclusion of super special stages (below, far left) and every official manufacturer.



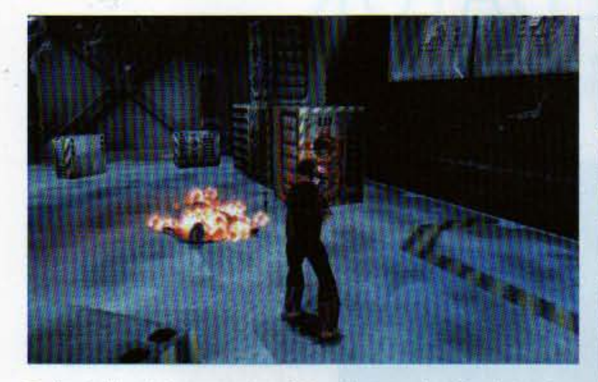






MESSIAH

FORMAT: **PC** DEVELOPER: **SHINY ENTERTAINMENT**







Endlessly delayed, these new shots of *Messiah* are proof positive that work continues on Shiny's highly ambitious title. *Messiah* is the first game to feature the RT-DAT engine (Real Time Deformation and Tessellation), which was previously only found on high-end workstations, to create the most realistic animation possible. Oh, and the AI routines are highly complex, too.

SPORTS CAR GT

FORMAT: **PC** DEVELOPER: **WESTWOOD STUDIOS**

Another racing title, this time from Westwood, which as well as facing external competition from countless other similar examples of the genre, will attempt to outclass EA's own *NASCAR* series. From screenshots, the game would seem to focus solely on the world of US GT sportscar racing, although as few details have surfaced from EA (or even Westwood itself), it would be too early to discount other possible GT series being featured.



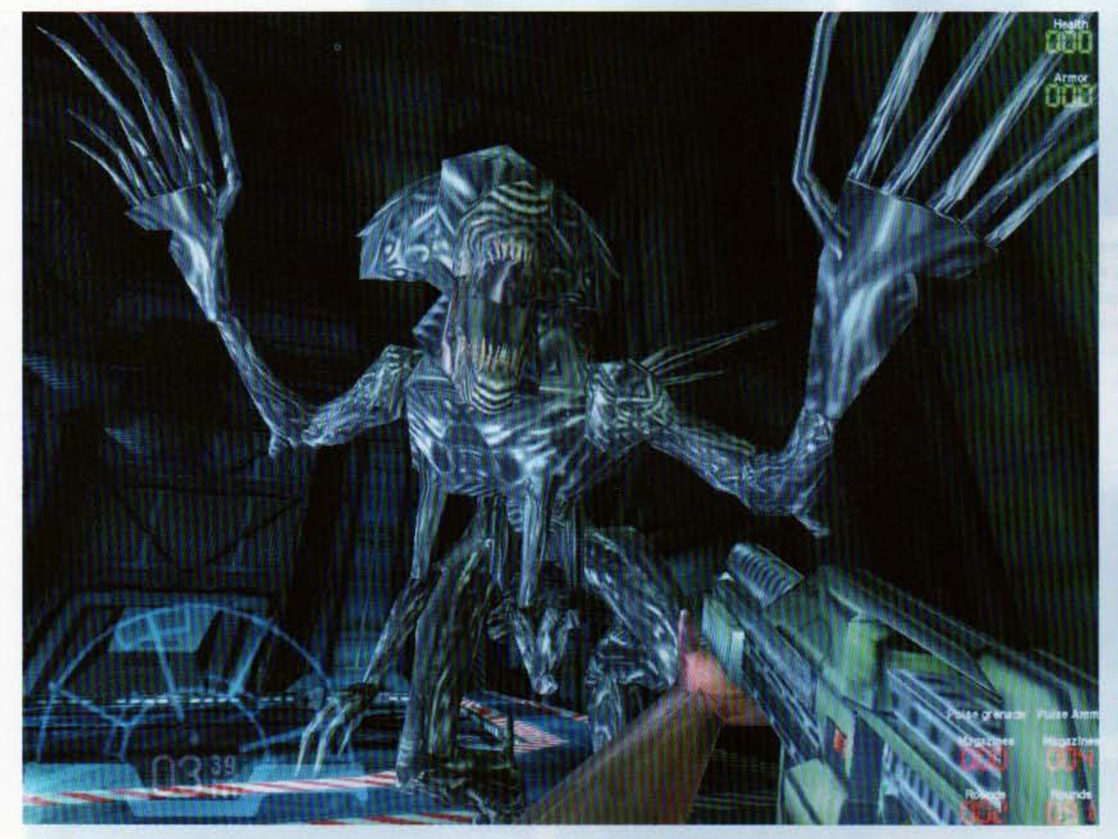






ALIENS Vs PREDATOR

Pick two vicious extra-terrestrials, throw in a handful of space marines and stir with a speedy 3D engine. What's cooking? An atmospheric three-games-in-one thriller to capture the imagination



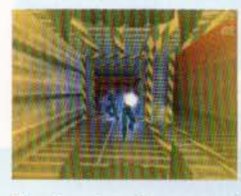
After fighting his way through numerous levels full of super fast and ultra-nasty aliens, the marine gets a taste of the real action; the alien queen. The pulse rifle, even with its combination grenade launcher, suddenly seems a little ineffectual











The view from the alien's mouth as it bears down on its foes is powerfully evocative

Format: **PC**

Publisher: **Fox Interactive**

Developer: **Rebellion**

Release: **Spring**

Origin: **UK**

For developers, the concept is to kill for: a firstperson shooter backed by two of the greatest action sci-fi movie licences ever. Small wonder, then, that people are beginning to get very excited about *Aliens Vs Predator*. Still, there has been a long gestation period since the first draft of the game surfaced on the ill-fated Jaguar console. Almost sunk along with Atari's hardware, Oxford-based developer Rebellion has spent the last three years honing the game's concept. This has meant juggling the requirements of strict licensing rules with gameplay that makes it worth playing. Rebellion has developed its own 3D engine, capable of dealing with the movements of ultra-fast aliens, and it looks as if *Aliens Vs Predator* should be that rarest of things; a big, movie-based game that satisfies both critics and public alike. Think *Half-Life* on the silver screen; *Mission: Impossible* it isn't.

As could be expected, the structure of *Aliens Vs Predator* is triangular, with the marine, alien and predator each available as a singleplayer option. This has created some development headaches, balancing out the strengths and weaknesses of the characters. The easily killed but well-armed marine has to play against the fast, unarmed aliens. The powerful but slow predator plays against the aliens, which in turn pit one of themselves against the marines.

Beginners will feel most at home with the marine in traditional, firstperson shoot em 'up style. Initially equipped with pulse rifle, grenades and the infamous motion tracker, he must recover files and complete the usual selection of submissions while collecting weapons upgrades and medi-kits. The smart ammo quickly becomes a necessity when dealing with ceiling-crawling aliens. It becomes evident, however, that the tone of *Aliens Vs Predator* is subtly different to games that have gone before. The advanced creature AI linked with open level design means that aliens are seldom found in the same







Aliens Vs Predator **is a truly terrifying game when playing as the fragile marine. He may get a ferocious selection of weapons and a motion sensor but against enemies like this, anything less would be complete suicide. There are no prizes for guessing who the most popular firstperson character will be**

locations twice. Their 'pheromone-weighing' system also allows them to track prey around levels, so it's best not to hang around for too long.

Of the three characters, the hardest to master is the Predator. It may be powerful, but it needs time to bring its firepower to bear. In addition, it is limited by the energy source which fuels its equipment; in particular the cloaking device and the auto-lock shoulder cannon. For that reason the crucial weapons that need to be employed are the razor-sharp wrist blades that make mincemeat of anything in their path. Other armaments include a long-distance speargun and an awesome throwing disc.

It is the aliens that will capture the attention of most gamers, though. It's disconcerting to begin with as there are no visual cues for navigating around levels, only an insect-like bug eye's view. It's not until the combat mode that teeth, claws and the auto-targeting tail appear onscreen. But this doesn't really help as the aliens can attack from anywhere. Feline-like, it can fall from the ceiling, land on its feet and take the head off a marine in one sharp movement.

It looks as if *Aliens Vs Predator* should be **a game that satisfies** both **critics and public** alike. **Think *Half-Life*** on the silver screen

Although unable to use medi-kits, the alien can boost health levels with a precise jaw attack that beheads a target. Yet, playing as the alien is not just about killing. To survive against high-powered weapons, cunning is needed.

One further aspect of the game generating a lot of interest is the multiplayer levels. Various options that seem likely to be featured include cooperative modes and 'last man alive' skirmish events. Due to the different combat styles, some sort of score biasing will have to be introduced to balance out the face-to-face weaponry advantages enjoyed by the marine and the predator over the alien. All this, combined with the three-games-in-one flexibility of the singleplayer option, means that *Aliens Vs Predator* is certain to take the interaction between movie licences and games to new levels of finesse – and terror.

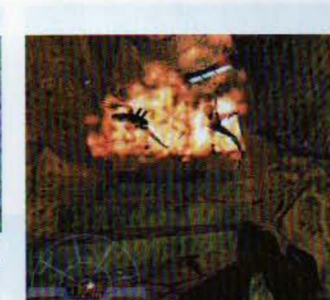




One second it's there, the next it's vanished. One of the predator's greatest assets is the invisibility offered by its cloaking ability



The aliens can attack from any direction and angle



DARKSTONE

RPGs may well be standard fare, posturing dungeons, dragons and fistfulls of magic, but Delphine is attempting to subvert the genre with lashings of story and swordplay







The combination of point-and-click direction and a responsive high-angle camera allows players to negotiate *Darkstone*'s 3D environment with ease. Even buildings cause no problems thanks to its transparency effects

Format: **PC/PlayStation**
(PC version shown here)

Publisher: **Electronic Arts**

Developer: **Delphine Studios**

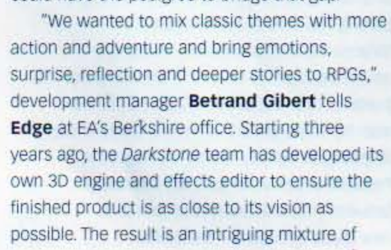
Release: **April (PC); October (PS)**

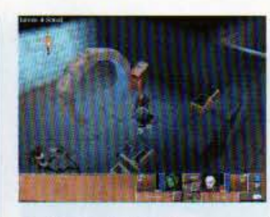
Origin: **France**

As RPG fans, the French are second only to the Japanese. And just as French cinema has developed a unique style of existential cool, so developers such as Cryo (*Ring*) and Adeline (*Little Big Adventure*) have a reputation for mixing beautiful graphics with quirky storylines. The only criticism levelled concerns gameplay – there has always been a suspicion that French developers are happiest dealing with style over content. But with a reputation built on *Fade To Black* and *Moto Racer*, Delphine's new RPG, *Darkstone*, could have the pedigree to bridge that gap.

"We wanted to mix classic themes with more action and adventure and bring emotions, surprise, reflection and deeper stories to RPGs," development manager **Betrand Gibert** tells **Edge** at EA's Berkshire office. Starting three years ago, the *Darkstone* team has developed its own 3D engine and effects editor to ensure the finished product is as close to its vision as possible. The result is an intriguing mixture of traditional RPG elements spiced up with some subtle new features. "We have all the features that work and that we know people like," Gibert explains. "In terms of complexity, there are combinations of characters and you have to work with your character and improve them. But the interface is not complicated, and the fact that it's in 3D makes it easier for new gamers to learn. Even if it is a little bit difficult to start with, the stories make you want to continue."

Potentially, the most interesting aspect of the game is the simultaneous control of two characters. One is set as the leader, while the other follows. These roles can be switched, or the link between the characters broken, as and when





Your mission is to save the world from the evil power of the Darkstone (left)









As seems to be the vogue in these post-*Zelda* days, the second half of the game takes place at night (below right)

While *Darkstone* mixes frantic bursts of dungeon-based fighting with reflective story-based elements and problem solving, the simultaneous control of two characters adds tactical considerations to the hacking of skeletons and orcs







The high quality of the particle effects used for magic and combat are one of the game's most impressive features

different scenarios require it. Consequently, AI plays an important role in all of this – you can only direct one character at a time, after all. Yet, even in the early levels, it's surprising how the ability to swap lead characters adds to the strategic elements of combat.

Darkstone also deals with the usual problems of camera angles within a 3D environment with aplomb. Combining a responsive high-angle camera with a transparent 'onion-skin' approach to solid buildings, it enables players to remain in charge of the action. Other impressive technical aspects include 3D realtime lighting (as the latter half of the game takes place at night), and plenty of particle effects.

More familiar are the bones that make up the skeleton of the game. The two characters are selectable from four traditional cast-based types: warrior, magician, thief and priest, with players opting for either male or female varieties. The basic story sees these protagonists travelling through seven levels to collect the lost crystals of the Magician's Guild. These stones unlock the Orb, the only weapon that can defeat the dragon Draak, who unleashes the Darkstone and threatens to turn everyone to stone. And while the plot is as old as the hills, there's also little new about the point-and-click direction or the constant effort needed to maintain the characters' life, mana (magic) and food levels. Much of the action takes place in dungeons full of goblins, orcs, skeletons and other staple RPG nasties, and on occasion the speed of combat and the swarming cloud of foes is reminiscent of the halcyon days of *Gauntlet*. However, this is soon broken up with gentler adventure-based activities, which involve teleporting back to the main town for a little R&R before upgrading weapons and spells and undertaking any number of different sub-quests.

On occasion the **speed of combat** and the **swarming cloud of foes** is reminiscent of the **halcyon days** of *Gauntlet*

Considering the variables, it'll be interesting to see how *Darkstone* develops throughout its 50-plus hours of gameplay. In these situations there's always the sense that some character combinations will prove more powerful than others. As Gibert points out, "Too many RPGs are complicated. We want *Darkstone* to be easy to play, but hard to master." And even at this stage, the game displays a coherence that makes it a truly pleasurable experience.

SAMURAI LEGENDS

What better subject matter than the grace and speed of martial arts to illustrate how far the videogame has come? Konami picks up the guantlet in its upcoming Japanese action adventure for the PlayStation





Special moves enable your character, either male warrior Kotaru or female warrior Hyaku, to take on more than one opponent at a time



Borrowing elements from *Resident Evil*, you choose to control either the heroine Hyaku...



...or the male protagonist, Kotaru. The martial arts-based adventure sees the characters' swordplay make quick work of weaker opponents

As videogame sprites evolved from boxy spacecraft to animated human figures, game developers immediately began the daunting task of capturing the elegant and mystical arts of Japan's Ninja and Samurai. From *Shinobi* to *Tenchu* and *Samurai Shodown* to *Bushido Blade 2*, you'd be hard pressed to find a better home for sophisticated collision detection than in a martial arts-based action game.

As *Tenchu* and *Bushido Blade* demonstrate, successful action adventure games are taking on more story-driven elements, and *Samurai Legends* is no exception. It combines sword-slashing, arterial blood-spraying gameplay with an involving storyline, not unlike the *Resident Evil* series. Players assume the role of either a male warrior, Kotaru, or Hyaku, a female member of the Shogunate police. Like *Res Evil*, the two characters share an intersecting story. Kotaru returns from training to find trouble brewing in his hometown, and his parents' graves have mysteriously been dug up. Hyaku has also arrived in town to try and track down her brother, who also worked for the Shogunate police.

In Konami's early demo, seen here, players can explore the town as either character, and in several cases, have to successfully defeat different enemies in sword combat before progressing to the next area. While exploring the town, players have the opportunity to speak to many non-player characters, who occasionally offer you inventory items, such as healing plants.

At this stage, the game's prerendered backgrounds and crisp 3D models already capture the crisp anime design that made the *Samurai Shodown* characters so likeable. If the combat (still very much in the early stages of development) is able to keep pace with the atmospheric setting and characters, *Samurai Legends* could definitely be in the running to be Konami's next big PlayStation winner.







As this stage, it looks like *Samurai Legends* will offer an involving storyline, as well as a slashing, action-packed atmospheric adventure



It's not all blood-letting; some of the NPCs are there to offer you advice and assistance







Format: **PlayStation**

Publisher: **Konami**

Developer: **In-house**

Release: **TBA**

Origin: **Japan**

TANKTICS

A realtime strategy game that involves a flying magnet, recycling sheep and building tanks. It could only be the latest brainchild of those *enfants terribles* at DMA





There are four time periods; stone age, medieval, modern and future. In the modern era, a helicopter carries the all important airborne magnet (above)



Like a family labrador, you can't help adoring *Tanktics*, thanks to its colourful environments and off-beat gameplay

Format: **PC/PlayStation**
(PC version shown)
Publisher: **Gremlin**
Developer: **DMA Design**
Release: **April**
Origin: **UK**

Part scrap-dealing and shepherding with some obligatory tank commanding thrown in, DMA's *Tanktics*, is something of an oddity. Starting in the stone age but spread over four time periods, the basis of the game is simple: you must build good tanks while destroying bad tanks. The details are more bizarre, however.

To start with, interaction with the environment is via a flying magnet that can grab any metal object lying around. Once picked up, these can be dropped into the Part-O-Matic. This base unit recycles whatever is thrown in it, including bits of old tanks or sheep, spitting out a random selection of new parts. Production speed can be increased by dropping more sheep on its treadmill, and when exhausted they can be revitalised in a puddle of sheep dip. *Tanktics* is the tank game in which sheep matter as much as armour.

Using the magnet, the piles of parts – tracks, engines, weapons and radar units – can be assembled into a basic tank. As they are modular, different combinations can be slotted together. The only rules are that no tank can consist of more than ten parts and must include an engine and a radar unit. One interesting aspect of the game is that tanks can be built anywhere on the map. They are useless, though, until a radar is dropped on top.

With tanks complete, the real battle begins. Each level has a number of enemy receivers dotted around which beam down evil tanks. Their sole mission is to destroy your Part-O-Matic. In the process of defending this crucial resource, plenty of cartoonish tank-on-tank action ensues. But before the receivers can be destroyed, their defences must be switched off. Each switch must be triggered by a certain rank, with tanks having to destroy four enemies to gain each promotion.

In addition to the four stages, with eight missions apiece, wacky time trials are available, one of which involves dropping burning sheep on wooden tanks. Thankfully a full tutorial mode will guide you through the mischief. Whether it will explain the psychedelic ingredient in Dundee's water supply is another matter.







Using parts recycled by the Part-O-Matic, tanks with all manner of different speed and weapon attributes can be constructed

BUST A MOVE 2

No one believed Enix could sell a game about disco dancing. Then, the world went disco mad, gamers discovered how to boogie and *Bust A Move* cleaned up. Enter the sequel









A new, alternate polygonal makeover is promised for each of the original cast of groovers, as well as a variety of new additions which should improve gameplay



Even the original's 'secret' characters have returned for what will hopefully be a longer lasting experience

Format: **PlayStation**

Publisher: **Enix**

Developer: **Metro**

Release: **Spring (Japan)**

Origin: **Japan**

For about ten minutes, *Bust A Move* provided one of the most original and hilarious twoplayer experiences videogaming has ever devised. Unfortunately, despite its fantastic characters, cool moves and funky sounds, the title lacked real staying power – something Metro is no doubt hoping to redress with the sequel.

At ground level, *Bust A Move 2* is not a major departure. You still control a dancer and you still have to follow the onscreen commands (using the D-pad and fire buttons), to pull off a selection of dance moves. It also seems that all of the original characters have returned – albeit in funky fresh clothing – and only a couple of new characters have been officially announced: Tsutomu, a school boy, and Comet, Freda's sister. This time around, however, Metro has taken a little inspiration from beat 'em up lore and given each character their own specific commands and moves, emphasising individuality and giving the game a broader gameplay scope. The designers have also added a more intelligent game system giving continually offbeat players easier dance commands to pull off, until they improve.

Of course, the visuals have been overhauled, too. For *Bust A Move 2* Metro has moved out of the stuffy confines of the club scene and instead presents a series of true-3D backgrounds. The Jungle Tour stage is particularly impressive, featuring a wooden dance platform floating down a river surrounded by rain forest foliage. The soundtrack, too, is being completely re-thought – apparently Japanese gamers complained about the retro feel of the audio in the first title.

So, while no drastic changes have been made to the format, *Bust A Move 2* should hopefully provide a more long-term challenge than its predecessor. Certainly the more complex command system will bring depth and diversity, and the 'intelligent', tutorial-nature of the oneplayer game may straighten out that learning curve. And anyway, in the absence of direct competition, a figurative lick of paint is probably all that was needed.



Second time around, the dancing has left the clubs and hit the city streets





Tsutomu the schoolboy, one of two newly announced dancers so far, can be seen taking on the fluid capoeira alien twins (above)

UM JAMMER LAMMY

Sony returns to the world of paper-thin cartoon freaks, teenage angst and rhythmic action, but it's time for a new character to adopt the role of MC



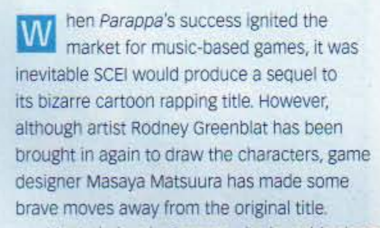






While Lammy's 'hare' guitar technique (top) is a good indication of things to come, a multiplayer option is yet to be confirmed





As before, a good sense of rhythm is the key to success, and various teachers aid your progress



This time around, instead of rappin', you're required to master a multitude of 'musical' instruments. Here, Lammy is strumming a firehose...

When *Parappa*'s success ignited the market for music-based games, it was inevitable SCEI would produce a sequel to its bizarre cartoon rapping title. However, although artist Rodney Greenblat has been brought in again to draw the characters, game designer Masaya Matsuura has made some brave moves away from the original title.

Most obviously, Parappa, the loveable doggy-styled MC, has been given the boot. The hero of the new game is the eponymous Lammy, an underachieving teenage slacker who seeks fame and fortune with her rock band, MilkCan. Joining her are Katy Kat from the original title and Mah-san the drumming mouse – an all-girl cast perhaps inspired by the huge popularity of the first game with female players. However, while Chop Chop puts in an appearance, Parappa's girlfriend Sunny Funny is absent.

Accompanying this change of character is a new style of music and a variation on the familiar gameplay method. In the first title, players had to hit the joypad buttons at the right time to rap along with a series of teachers. This time, players have to master a collection of musical instruments, hitting the buttons to strum to the rhythm – admittedly not an epoch-making shift in direction, but the switch to rock music is interesting considering the recent success of Konami's dance-based *Beat-Mania* titles.

Parappa's teaching staff were a freaky outfit, but here Greenblat has excelled himself. During her quest for fame, Lammy is taught by a diverse bunch, including an airline pilot, a fire-fighting dalmatian and a beaver. Whatever they're taking at SCEI it must be expensive and illegal...

Elsewhere, the inclusion of a simultaneous twoplayer mode will please fans of *Bust A Groove* – there is also talk of a multiplayer Jam mode, although SCEI is yet to release details of how this will work. **Edge** is certainly looking forward to finding out.



Format: **PlayStation**

Publisher: **SCEI**

Developer: **In-house**

Release: **March (Japan)**

Origin: **Japan**







While Chop Chop and Katy Kat make a comeback, the celebrated Parappa is nowhere to be seen

MARVEL Vs CAPCOM

It may be attempting to haul fighting games into the third dimension with *Power Stone*, but Capcom is happy to remain among the old-school for its latest licensed beat 'em up





Choosing the right fighting partners is crucial, as they can be called in to help out during battles, as well as combining for powerful joint attacks





There will be a range of 35 characters in total to choose from, with each player choosing two

Format: **Dreamcast**

Publisher: **Capcom**

Developer: **In-house**

Release: **March**

Origin: **Japan**

In a move that will please members of the beleaguered 2D gaming community, as well as owners of Sega's new console, Capcom plans to port its popular *Marvel Vs Capcom* arcade beat 'em up to Dreamcast. Capcom has spent three years trying to convert different versions of the series from its CPS III board standard. The lower specification hardware of the home game machines, first Saturn and then PlayStation, has never allowed a satisfactory conversion. (It didn't help that the Saturn versions required the use of an additional 4Mb expansion pack.) With the Dreamcast version however, Capcom seems confident it has the processing power needed to create that most prized accolade, an 'arcade perfect' conversion.

After working through various generations, from *X-Men Vs Street Fighter* to *Marvel Super Heroes Vs Street Fighter*, Capcom decided to change tack. While *Marvel Vs Capcom* has a control system similar to that in *Marvel Super Heroes Vs Street Fighter*, the control of the second tag member has been reinforced. Now they can be called on for defence or attack, or even during a counter-attack. Both team members can be used together in the combination mode to attack at the same time. This makes the choice of complementary team members increasingly crucial.



Capcom is banking on the capabilities of Dreamcast's extra processing power to achieve an 'arcade perfect' conversion of its latest beat 'em up

Featuring many of the characters from the original *Street Fighter* series, players can select a primary fighter from a choice of 15. The second tag fighter is then chosen from another set of 20 characters. On the *Marvel* side the choice will be: Spiderman, Venom, Captain America, Hulk, War Machine, Wolverine and Gambit. *Capcom's* line-up includes; Strider, Hiryu, Jin, Megaman, Zangief, Captain Commando, Morrigan and Chun-Li.

While many expect *Marvel Vs Capcom* to be at least close to arcade perfect, Capcom remains tight-lipped at present, and so far has only revealed a select stage in Vs mode. Scheduled for release soon after the eagerly awaited *Power Stone*, a title hoped to move the genre forward, *Marvel Vs Capcom* could find itself upholding the honour of the old-school beat 'em up brigade. **Edge** can't wait to see which party ends up victorious.





***Marvel Vs Capcom* will be attempting to champion the honour of the old-school 2D fighter format again**



Shenmue

Edge glimpses into the epic world being created by Sega's legendary game designer, Yu Suzuki

Format: **Dreamcast**
Publisher: **Sega**
Developer: **Sega AM2**
Release: **Spring (Japan)**
Origin: **Japan**

The success of *Gran Turismo*, *GoldenEye* and *Metal Gear Solid* is testament to reality's status as a hot gaming commodity. Just the right atmosphere for Yu Suzuki's ambitious attempt to squeeze his vision of real life into Sega's 128bit box.

The seed that became *Shenmue* first germinated five years ago, but it quickly became obvious that the available hardware was not powerful enough to do justice to the scope of that vision. Two years later, Suzuki-san started work on the game proper and AM2 has been hard at work ever since. If *Shenmue* fulfils its potential it could be the first real hit of Dreamcast's young life, at least in Japan. More than this, though, so grand is *Shenmue*'s design that it could advance the boundaries of gaming. Alternatively, if its disparate and complex elements are not properly integrated the degree of failure will be more measured.

Rich ambience

Much praise has already been lavished on the game's incredible level of detail (**E**68). There are 1,200 different rooms to be examined, many of which are not directly relevant to the plot structure but serve to enrich the ambience.

The action is spread over three main areas, all of which have been thoroughly researched. Starting in 1986, in the small town of Yokosuka near Tokyo, *Shenmue*'s main character is the

young Ryo Hazuki. Following the mysterious death of his father, a Jujitsu master, Ryo travels to Hong Kong to investigate. From there, he moves onto the Walled City of Kowloon on the Chinese mainland, meeting a variety of different people along the way, including love interest Rei Shenhua. Some of the other main characters include a Hong Kong street gang leader, a Kempo-style master fighter, and a mysterious femme fatale. In its determination to provide the complete lifestyle, AM2 has even written in a recreation of an arcade which includes playable classics such as *Space Harrier*, *OutRun* and *Afterburner*.







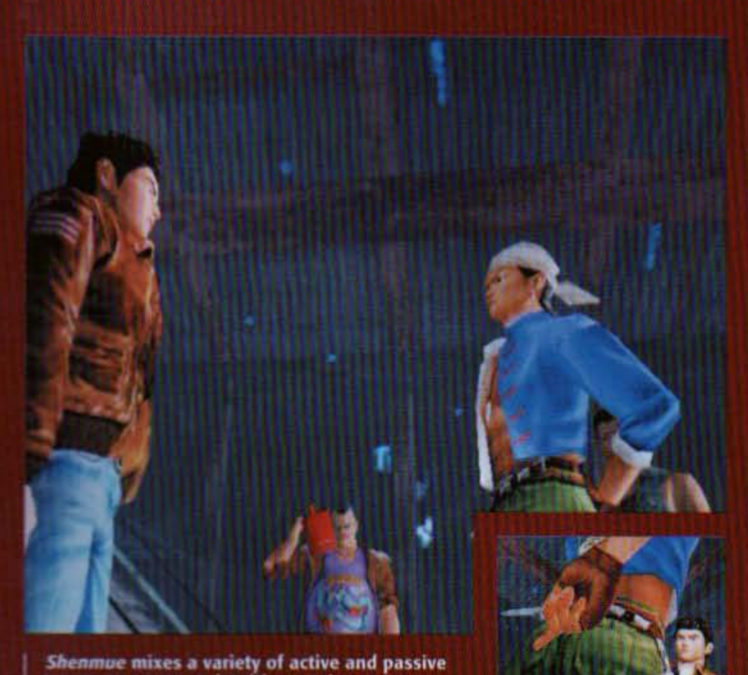
The sequences in which players must progress by responding to flashing onscreen icons, are proving to be a highly controversial feature

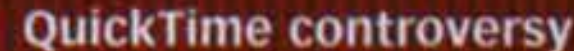
Universal appeal

Pretty graphics and large scale environments, of course, mean nothing if basic gameplay is not integrated in a satisfactory manner. It is at this point that another level of *Shenmue's* ambition becomes evident. Suzuki-san has claimed that the rationale behind the game, as initially designed, was that players as young as his then-five-year-old son should be able to play. Obviously it should appeal to adults, too, and, in spite of its parochial environment, be accessible to players from many different countries. This sort of commitment forces certain constraints on the means of controlling the characters and therefore has an impact on the game's atmosphere; it must be intuitive but also challenging, mixing observational aspects with more traditional combat-based activities.

AM2 sums up its method of reconciling these requirements with the cumbersome acronym FREE (Full Reactive Eyes Entertainment). Like *Final Fantasy VII*, *Shenmue* is divided into two different game modes: play and view. Dreamcast's graphical grunt is pushed well into the limelight, in both the predetermined and interactive sections, with some beautiful moments. But, while the 'view' mode is simply a semi-interactive movie in which the player can look around but have little direct impact on gameplay, the 'play' mode features a number of different concepts.

The simplest are the looking and conversation modes. Considering the detail of the environments and the numbers of NPCs that can be investigated, these are important as much for atmospheric reasons as for game progression. As such, the quantity of recorded dialogue in *Shenmue* is immense. Some of the main characters will be voiced by Japanese comedians, although no decision has been taken on whether this tactic will be used in the preparation of the English version.





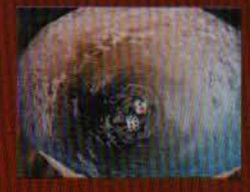
Shenmue mixes a variety of active and passive events to create an intuitive gaming structure

QuickTime controversy

Movement is straightforward and conventional, allowing players to concentrate on where they are going, rather than on the specific route taken. In contrast, the so-called *QuickTime Events* (*QTEs*) have already excited much controversy.

During these, a flashing icon appears onscreen and the player has to push a certain button in order to initiate the requisite action. But *QTEs* seem to be more deeply integrated into *Shenmue's* underlying structure than previously thought. Rather than being repetitive









Yu Suzuki has designed the game to be realistic and visually immersive, so special attention has been paid to modelling the characters' hands















With three massive Asian locations, *Shenmue* follows the story of Ryo Hazuki as he investigates the death of his father. The game contains over 500 NPCs, some of whom will enter into conversation, imparting useful information. Others, however, will be more aggressive and pugilistic in attitude

Impressive visuals and a rapturous reception in Japan are virtually guaranteed, but *Shenmue*'s impact outside its RPG-obsessed home market is less certain

button-bashing bouts triggered by specific occurrences, *QTE*s will be unexpected, varied in aspect and spread throughout *Shenmue*'s enormous environment. Some will involve negotiating obstacles and hazards, others will be combat-based; many will affect the ebb and flow of your fortunes in the game more deeply than you might initially expect – and failure to complete *QTE*s in time will result in new plot directions, injury or even death.

Punch drunk

Back in late '98 when it was known as *Project Berkley*, *Shenmue* was nicknamed '*Virtua Fighter RPG*' – an alternative moniker from which Sega attempted to distance itself. It's ironic, then, that the combat is loosely based on traditional beat 'em moves from the *Virtua Fighter* stable.

It's possible to engage several opponents simultaneously – though you'd be wise to exercise discretion in doing so unless you're confident of Ryo's ability to emerge unscathed. An evade option will be included for when the action gets too hot.

Unlike *Metal Gear Solid*, players will be able to adjust the direction of Ryo's head independently of his body movement. Control is split between the analogue stick, for 360-degree vision, and the D-pad used for movement.

Despite the apparent complexity of its play modes, *Shenmue*'s greatest innovation looks set to be its use of realtime progressions. Suzuki-san's claim that *Shenmue* is the first four dimensional game must, at this stage, be taken seriously, for unlike the accelerated time lapses of *Zelda*, one hour spent playing *Shenmue* equates to one hour in the game world. This facet will amplify the complexity of your relationship with NPCs as they move independently through the game environment, and sets the onus on you to be in the right place at the right time in order to be party to crucial events. Linked to this is the dynamic or so-called 'magic' weather system. For example, some clues may be obscured by snow at certain times, or it may be impossible for a ferry to sail in windy conditions.

Yet, for all this hyperbole, it remains hard to tell exactly how well *Shenmue* will hang together as a game when it is finally completed. Impressive visuals and a rapturous reception in Japan are guaranteed, but its impact outside its RPG-obsessed home market is less certain. Even its release date is a mystery. Recently, however, Sega made a surprise announcement: that it was releasing a downloadable VMS *Shenmue* mini game on Dreamcast's Internet site. Maybe this will back up the speculation with firm evidence; hopefully it will hold more promise than *Godzilla*, the last subject of this tactic...



Some of the fighting events will use a *Virtua Fighter*-style control system, which enables characters to punch, kick, block and evade

Format: **PC/PlayStation**
(PC version shown here)

Publisher: **Infogrames**

Developer: **Eutechnyx**

Release: **June**

Origin: **UK**

LeMans24Hours

Blown engines and burst tyres are par for the course in the world's most gruelling motorsport, now poised to become the most endurance-sapping videogame ever

As last month's Learning Curves feature testified, racing games have progressed leaps and bounds in the past few years, topping the charts consistently. *Gran Turismo* opened up new levels of realism and handling, the *TOCA* series and *Colin McRae* put physics into touring cars and rallying, and *Ridge Racer 4* has pushed the visceral thrill of arcade action. There would seem to be few opportunities left on four wheels for developers determined to do something different and exciting. Enter, then, the most unhinged race in the world: Le Mans.

There's just one basic rule: the car that completes the most amount of laps in 24 hours wins. The event that guarantees only half the starting line-up will survive to the end, Le Mans turns beautiful cars into steaming wrecks of scrap metal and twisted carbon fibre. Last year only 23 of the 48-strong starting field finished, and emotions ran high – the Toyota mechanics were reduced to tears after the gearbox of one of their GT1 cars melted 23-and-a-half hours into the race. It's not called an endurance race for nothing.

Another eccentricity is that three different classes of car – GT1, GT2 and prototype cars – race at the same time. The GT classes must be race cars with a production run of greater than 200, while the GT2 are more powerful models. Prototypes are one-off designs, normally manufactured by specialised teams, which helps to explain why Le Mans is a fascinating basis for a driving simulation. **Edge** visited Eutechnyx's Newcastle base to witness the game in progress.

Track testing

"The initial challenge was we wanted a race with a lot of cars in it," says







Thanks to the help of consultant teams including Toyota (above) and Konrad (right), *Le Mans 24 Hours* demonstrates high levels of realism





With landmarks such as the famous Dunlop Bridge, Le Mans is the most characteristic race track in the world

programming manager **Andrew Perella**. "In a lot of games you're just racing the track. There are other cars, but they are driving around a predefined track. We wanted a lot of cars that you could actually race against, so we've spent a lot of time on the AI."

With 48 cars on track, *Le Mans* was always going to push the ageing PlayStation's capabilities, but Eutechnyx expects to get 16 cars running. The PC version will allow all 48 cars to hurtle their way around the famous 13Km Circuit de la Sarthe, and the multiplayer option will support 16 drivers.

While the number of cars is important, the crucial aspect of this game is the integration of the race length into the gameplay. Of course, the highlight has to be a full 24-hour long simulation that requires an 'in the pits' save option. But this poses another challenge for the memory-deficient PlayStation. Thankfully, for those not suffering from insomnia, less strenuous races such as a ten-track arcade mode and season-long championship mode are included. In addition to the Circuit de la Sarthe, the nine other European-style tracks have been cleared by the Automobile Club de l'Ouest (ACO), the overall controller of the Le Mans licence. It has meticulously overseen the digitisation of the home track, as marketing director **Paul Jobling** explains: "The ACO director of communications came over and compared a video of the real track with our version, 50 yards at a time. He was saying things like, 'That road is about ten yards further down, can you move it?' So we know every single curve and every single chicane is right." The only ACO rule that the game breaks is the one excluding cars with a reverse gear.

"This is a game where bits will fall off the cars and flames will come out of the engine compartment. We're not doing anything that's not realistic" Paul Jobling, marketing director



In keeping with the 24-hour time span, drivers experience many different environmental conditions, including weather and realtime night and day (top)

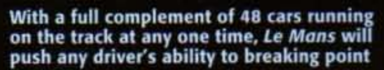
Smooth ride

Introducing this level of accuracy has thrown up technical problems of its own, especially as the flatlands of Le Mans are susceptible to dreaded pop-up. Eutechnyx, however, claims to have overcome this problem thanks to a new slice of code, and as far as **Edge** could ascertain, it works effectively. Another necessity has been the implementation of a dynamic time-lapse system to turn day to night. Realtime lighting, particularly headlights, and weather effects make up the rest of the environmental picture. The level of detail









With a full complement of 48 cars running on the track at any one time, *Le Mans* will push any driver's ability to breaking point



With the ACO maintaining strict control over the realism of the Circuit de la Sarthe race track, Eutechnyx had to work hard to ensure that the flat geography of the Le Mans arena did not suffer pop-up obtrusions

even extends to modelling the car classes' different coloured headlights. With the slower GT1s, their drivers need to know to get out of the way of faster traffic at night. Flashing your headlights is the accepted Le Mans solution and one that the game will implement.

Destruction derby

Realism has also had a physical impact on vehicle modelling. In contrast to the niceties of *Gran Turismo*, where manufacturers' strict requirements prevented cars suffering collision damage, the 24 consultant race teams here are happy to allow their cars to be run into the ground. And with motoring giants such as Jaguar, AMG Mercedes and Nissan mixing it with specialist marques such as Kremer, Konrad and Marcos, it's quite a breakthrough. "What we said was, 'Look, this is an outrageous race over 24 hours,'" says Jobling. "In the real race cars have turbochargers that blow up, tyres that shred, and cars that come back on three wheels. We've said, 'This is a game where bits will fall off the cars and flames will come out of the engine compartment, like they do in the real race.' We're not doing anything that's not realistic." Even tyre manufacturers such as Michelin and Dunlop accept that if drivers leave strips of black rubber around the track, it won't be long before they're limping back into the pits.



Unlike the outlandish *Ridge Racer Type 4*, *Le Mans* aims for realism

A happy compromise

This kind of realism requires dealing with areas that racing developers haven't had to get to grips with before – notably the physics of component failure. In the three race modes – arcade, championship and the full 24-hour simulation – Eutechnyx is aware that compromises will have to be made. Perella, again: "Well, we've got engines blowing out, but it depends on the mode. In arcade mode we won't retire the player; the computer cars might retire. But in the full-on simulation you've got to be careful how you drive." And although it's hard to tell how coherently this level of programming has been implemented at present, it could introduce a new level of strategic thinking to racing games.

Still, no matter how good the details are, the greatest test of *Le Mans* will be in the number of people who enjoy the game enough to attempt the course in real time. Eutechnyx is looking forward to handing the game over to Sony's in-house testers for their comments. (Quite how happy the testers will be when they hear about this is unclear, however...) But there's another significant test in the offing, too: what happens when you run a PlayStation for 24 hours nonstop? *Le Mans 24 Hour* could be the first game to push the electrical guts of the PlayStation further than its electronics. E





Unlike *Gran Turismo*, cars can suffer from collision damage, gearbox failure and engine blowouts



Format: **PC**

Publisher: **Interplay**

Developer: **Planet Moon Studios**

Release: **TBA**

Origin: **US**

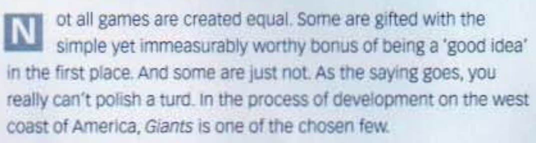
Giants

Something *big* is brewing in San Francisco. Edge meets the small, but perfectly formed, Planet Moon team to talk about their much-anticipated coming release





***Giants* is, as you might expect, played in a fantasy world of vast proportions and epic events, such as the Reapers' whirlwind**



Not all games are created equal. Some are gifted with the simple yet immeasurably worthy bonus of being a 'good idea' in the first place. And some are just not. As the saying goes, you really can't polish a turd. In the process of development on the west coast of America, *Giants* is one of the chosen few.

In a time when the techno-industrial gloom of PC games is common enough to risk players being tipped into permanent depression, *Giants* is a piercing ray of originality. Yes, it's a shoot 'em up, but chiefly in the third- not firstperson (although there's an option to switch if you so desire). In itself, that description undersells the title's potential, not least because there's a beautifully coloured game world to explore, a microcosmic ecosystem to participate in, and a plot which, as ever, demands to be unfurled.

If there's any game which can have a finger pointed to it as inspiration for *Giants*, it's the equally off-beat and similarly thirdperson shoot 'em up *MDK*. There's a simple explanation: the team responsible for the two games is one and the same. Around the middle of 1997, five battle-scarred developers took the difficult decision to splinter from Dave Perry's Shiny Entertainment, where *MDK* had been born.

"Regrets? Nope. Hard to leave? Very. David is one of my best friends," reminisces president of the new group, **Nick Bruty**. "We had been making games together for ten years, and the morning we told him we were leaving ranks highly in my top ten of bad days." With Bruty went **Tim Williams**, **Bob Stevenson**, **Andy Astor** and Shawn Nelson, incorporating their new studio in July '97. Certainly, their move from Shiny was more difficult than their earlier departure from Virgin Interactive – a break which Bruty describes as, "A relief. That place was turning into a zoo. To leave Virgin and start Shiny was completing a circle. It was getting back to just having sheer bloody good fun making a game without any rules, just like the early days before the industry grew up into a responsible old man with a tweed wardrobe."

With the decision made, and Interplay retained to publish whatever the team produced ("It's much easier if you can stick with the same publisher, as they learn your odd ways," grins Bruty), two more pieces then slotted into place – a final team member, programmer Scott Guest, and with him a company name: Planet Moon Studios.

"It's a malapropism that Scott once came out with during a drunken night," explains creative director Williams. "We just liked the absurdity of calling the moon a planet." One of the company's great attributes is its sense of humour, a facet which has spilled over into its game. *Giants* is packed with moments which bring a smile to the face – such as the chatter of the Smarties, the hungry inhabitants of the game inspired by *South Park's* malnourished 'Etheropian' Starvin' Marvin.

"Yes, we are having a good laugh!" says Williams, cracking a broad smile. "I think it has a lot to do with the fact that there are only six of us here, we're good at what we do, and we're all great friends. Plus, we like the odd G&T down the pub, and that's gotta be good for the kids!"



Who are you?
I'm Scott Guest, I'm 28 years old and I'm addicted to programming. It's been over ten years now and I need help! At first it was just for fun. Now, it's for the rush.

What is your quest?
The journey to Planet Moon has been long; I've visited many places on the way, such as the Gremlin constellation and the Virgin nebula. Finally, arriving at Planet Moon I assumed the rather posh role of 'principal software engineer'.

What's the most giant thing you've ever seen?
In a dream, ah yes, the fruit of the pure logic tree.

Do you secretly desire the Sea Reapers?
Andy does, and it's no secret! He's been known to paint himself blue and sing like a dolphin at the nearest Smartie bar on karaoke night. Who knows, it might just work...

What are you going to do when the game is over?
'Press continue' of course, well, not before a large glass of water and trip to Planet Majorca where I expect to enjoy their abundance of fine culture and feel inspired to write poetry. No doubt I'll return with tremendous tales and several T-shirts.

Big game hunting

Sitting down to play *Giants* for the first time, it would be easy to dismiss Planet Moon's venture as a technicolour *MDK*. But the similar camera view of a character with a gun is just the starting point for a far richer experience, a journey into a game world so sparkling with colour and life that only Infogrames' forthcoming *Outcast* (see **E**59) could be considered a rival.

"Making *Giants* colourful was a very conscious decision for us. We were simply fed up of doing dark graphics. *MDK* would have been brighter, too, if it wasn't for the fact that we needed so many plain black polygons to keep the framerate up," adds Stevenson, Planet Moon's co-art director.

"The outdoor vast landscape was part of our initial design," says programming director Astor. "Somewhat taking *MDK* to the next step, we've gone through a number of design cycles on how our outside world is constructed. In general, I try to keep the design simple. Simple often means fast, and while there's been some challenges in the landscape programming, that's not where we spend most of the programming time."

"Between developing and playing games we obviously spend too much time inside, so our game is based outside," Bruty chips in. "My two-pence philosophy with development is to never be weighed down by any technical restraints at the start – freely throwing everything onto the screen with reckless regard for poly counts in search of that little piece of magic." And then, he explains, "When you find it, scale everything else around it down until the whole thing starts moving again."

The action takes place on a massive chunk of a shattered planet hurtling through space. But this rock is far from a barren asteroid, it's more of a lost Eden, in fact, populated by various creatures – passive and otherwise. Battling for control of this apparent paradise are three forces, each with its own strengths and weaknesses; a siren-esque Sea Reaper called Delphi; a wayward band of soldiers, the Meccaryns; and the giant himself, Citizen Kabuto. On the sidelines are the timorous Smarties, who occasionally offer help to the Meccaryns in return for food.

Although *Giants* is built around the story of the Meccaryns – actually a rowdy cockney crowd tagged Baz, Tel, Reg, Gordon and Bennett – Planet Moon has almost created three games in one by allowing you to play each of the three sides. "To a certain extent, yes," admits Williams. "You start off playing the Meccaryns, but during the course of their story the player will find turning points where they play the other characters – kind of like one character handing the baton on to the next, but at the same time retaining the cohesiveness of the Meccaryn story."

"The Meccs build up over time," Williams goes on to explain.



Who are you?
Nick Bruty

What is your quest?
I'm planning on cornering the fast food market with my private collection of Sea Chickens. Meanwhile, I'm happy as president and co-art/design director of Planet Moon.

How old are you?
29 (man years, even as a baby)

Name five games you've worked on
MDK (PC), *EWJ 1&2* (SNES), *Aladdin* (Mega Drive), *Alien 3* (SNES), *Supremacy* (Amiga)

What's the most giant thing you've ever seen?
I once saw Blackpool tower, it was huge.

Do you secretly desire the Sea Reapers?
No, but I hear Andy has carved life-sized statues of Delphi.

What are you going to do when the game is over?
It's never over; OEMs, conversions, press tours... But this will be what I'm dreaming of on the last night of development: Somewhere in Italy, I fall into a blissful sleep only to awake in the middle of the 1999 Pirelli photo shoot.

"My two-pence philosophy with development is to never be weighed down by any technical restraints at the start – freely throwing everything onto the screen with reckless regard for poly counts in search of that little piece of magic"
Nick Bruty, president Planet Moon



Who are you?
Tim Williams

What is your quest?
Creative director

How old are you?
29

Name five games you've worked on
MDK (PC), *Propaganda* (Mega Drive), *Cool Spot* (Mega Drive), *Robocop Vs Terminator* (Mega Drive), *Global Gladiators* (Mega Drive).

What's the most giant thing you've ever seen?
The magnanimous love I feel for all Scandinavian women of the world.

Do you secretly desire the Sea Reapers?
I do, and I know for a fact that they love me.

What will you do when the game's over?
Off to Wales to do some close harmony singing, then off to Prague, Czech Republic, for a few pints.







The giant of the title is Citizen Kabuto, a protective goliath created by the Reapers, but now wild. His size and scale is truly impressive



Planet Moon has created an entire world for the player to explore, complete with its own hierarchical ecosystem. The draw distance has been pushed as far as possible to help suspend disbelief while playing



Who are you?
Andy Astor (Last time I checked)

What is your quest?
Programming director, cook

How old are you?
A decade older than anyone else here (41+)

Name five games you've worked on
Giants, *MDK* (PC), as lead programmer; *EWJ2 Special Edition* (Mega Drive) as lead programmer; *EWJ Special Edition* (Mega CD) as lead programmer; *EWJ1* (Mega Drive & SNES) on programming and tools; *Aladdin* (Mega Drive) on development tools

What's the most giant thing you've ever seen?
The work I have to do to get this game done.

Do you secretly desire the Sea Reapers?
Who wouldn't, especially when Delphi divides into clones.

What are you going to do when the game has been finished?
Some fun in the sun sounds good, maybe a trip to Italy or Turkey.

"Four of us are British, so I think there is that influence in whatever we do. Plus, since Britain is the coolest country in the world, you can't really go wrong... Maybe we were just creating our own little piece of Britain here at Planet Moon"

Tim Williams, creative director Planet Moon

"At experience level one, your team of four will just stand by you and fire; but when the team is up around experience level ten they'll dive to the ground, run behind trees, rocks, or even use dead creatures for cover before flying behind the attackers for a better shot. They actually become more intelligent! You just equip them with the weapons, and they get to work helping you out."

Giants is tinged with British symbolism, with the East End Meccaryns planting the Union Jack at every opportunity – which at first seems a little odd for a game being developed in San Francisco. "Four of us are British, so I think there is that influence in whatever we do. Plus, since Britain is the coolest country in the world, you can't really go wrong," Williams grins. "Maybe we were just creating our own little piece of Britain here at Planet Moon, but it's probably because we were completely bladdered and missing our beloved country."

Having it large

Technically, the game has much to commend it, not least the far horizon to which its graphics engine can draw. **Edge** test-drove an early version of the game on a P266 with a Voodoo 1 card, and the then-unoptimised code ran fairly smoothly, even when contending with swarms of enemies. Bearing in mind that *MDK* was initially available only to run in software, *Giants*' adept coding makes perfect sense.

"We tend to support whatever makes sense, and the graphics driver is also an external DLL," says Astor. "The primary support is for *Glide* and *D3D*. I've got a problem with *OpenGL* as it doesn't support a lot of the graphics blending modes that we're using and therefore can't achieve the visuals that are necessary for this game. As a minimum specification, we're looking at a P166 with the equivalent of a Voodoo 1 graphics card."

Aurally, *Giants* is set to keep pace with current techniques, too. "We plan on supporting normal *DirectSound 2D* (some 3D in software), *DirectSound 3D*, Creative's *EAX*, *A3D*, and anything else that makes sense," Astor reveals. "The sound portion of the



Who are you?
Shawn Nelson

What is your quest?
I am the lead animator or the 'instigator of things that move'

How old are you?
31 so far (I plan to do better later on)

Name five games you've worked on
Well, back in Britain during the old Commodore 5014 days I worked on several pornographic projects, but since the characters were only 16 pixels each they were big flops and never released. Then I did some work on a game for the Amiga 64-and-a-half where you shot old ladies in the head for no good reason but that didn't go down well. Fortunately for me, Nick was nice enough to hire me for the *MDK* team. I went straight to *Giants* where I still work even to this day.

What's the most giant thing you've ever seen?
It's between:
1) Candle Stick Park in San Francisco
2) An American football team in New York
3) Redwood tree in Sequoia National Park
4) A half-price sale at the local department store. No wait, that was just 'huge', not 'giant'. I'll stick with the first three.

Do you or anyone else desire the Sea Reaper Delphi?
As the one who controls her movements I can confidently say none of the guys have amorous feelings for me... I mean her!

What are you going to do when the game is over?
I usually hike far into the mountains of Northern California and live with a tribe of very polite grizzly bears.



The sheer oddness of the Meccaryns, flag-waving chirpy cockney types, takes a little adjusting to. Those crazy Brits...



game is externalised into a DLL, so it shouldn't be hard to drop in sound drivers as they are needed."

As with all developments, creating *Giants* hasn't been without its obstacles. "The animation system was a lot of work," admits programmer **Scott Guest**. "We support a lot of features such as animation blending (for smooth transitions between animations) and animation splicing (for combining animations together). Additionally we also support all the PRS type controllers found in *3DS Max*. This required a lot of effort figuring out how *Max* worked internally, thus taking my medal for most technical obstacle."

Ending the epic

With a completion date set somewhere near summer ("We'll let you know as soon as we figure it out," quips Stevenson), *Giants* still has much to be added to its promising mix. Already, though, there's a refreshing sense that something a little different is being programmed out in San Francisco – an ability that seems to come naturally to the Planet Moon crew.

"We strive to be original – which, let's be honest, isn't too hard when you look around – but if we didn't have the natural ability to back it up the results would probably look weak," maintains Bruty.

"It was a little frustrating with *MDK*," adds Stevenson. "I don't think that it fitted comfortably in any particular genre. People thought it was very creative but they weren't sure what the hell it was." This time around, the team wants to connect more strongly with the game's potential players. "We want people to know that underneath all the unusual visuals and aside from the fact that you play a group of five space guys, a 100-foot-tall giant, and a beautiful female Sea Reaper; that this game is extremely straightforward," he says, slipping gradually into irony before pointing out that, "Ultimately, we're very proud of this game and we want it to sell well."

The support from Interplay, also set to publish Confounding Factor's *Galleon*, is clearly appreciated, too. "Interplay has been very active in picking up quality developers, and then giving you the peace and quiet a small developer wants," points out Bruty. "Their PC line-up through '99 is hard to match for originality and content."

As one of the 'star' small developers of the late 1990s, Planet Moon is part of a growing trend that looks set to become the *de facto* business model for development in the 21st Century. "When I started working at Virgin in the US I was astounded by how many people they had working on a single game," explains Stevenson. "Then, at Shiny, there were just six of us working on *MDK*, so when we decided to move on and set up Planet Moon Studios it was very important for us to keep that manageable size. It seems like there's been loads of small development companies that have split from larger companies only to quickly expand and become bloated themselves within a few years. That cycle seems inevitable to me."

If small and potent means an increase in innovative and titles like *Giants*, then roll on the revolution. Meanwhile, waiting for *Giants* to be finished will make for a frustrating six months.



What is your name?
Bob Stevenson

What is your quest?
Co-art/design director and vice president

How old are you?
30

Name five games you've worked on
MDK (PC), *Robocop Vs Terminator* (SNES), *Myth* (C64), *Salamander* (C64), *IO* (C64)

What's the most giant thing you've ever seen?
It has to be the sun. The largest man-made thing I've seen through someone else's eyes is the Great Wall of China from a craft orbiting the world

Do any of you secretly desire the Sea Reapers?
I think Tim Williams does. He looks the type.

What are you going to do when the game has been finished?
I'm going to be a father in August, so no doubt I'll just be sitting staring in sheer amazement at my baby with my wife.

Meet the neighbours



Citizen Kabuto
The scale of *Giants* is brought into sharp relief the first time the leviathan Kabuto is seen in action (for a good impression, there's a downloadable MPEG at www.planetmoon.com). "We were just thinking how much fun it would be to fight King Kong in one of those biplanes; and then we thought, hell, it would also be a great laugh to be King Kong smashing up those bi-planes," grins **Tim Williams**.

Kabuto was created by the Sea Reapers to guard the precious island that he has now displaced them from. However, he's unaware of his roots – the only clue to the manner of his birth is the '001' imprinted on his stomach. His protective instincts became a little misdirected, forcing the hapless Sea Reapers to flee from their own guardian. While obviously less agile than his dwarf-like foes, Kabuto has the similarly apparent advantage of massive strength and size.



Delphi and the Sea Reapers
As a foil to the more earthly strengths of the giant and the Meccaryns, the Sea Reapers are a mystical group of women evolved into powerful magicians – capable of summoning whirlwinds to carry away their enemies. "There's an array of weaponry that no one has yet seen for the Meccs, but obviously it's the Reapers with their 'Bigger Is Better' policy who steal the day," illustrates **Nick Bruty**. "Expect giant tidal waves, sub-atomic earthquakes and, of course, ball lightning in the shape of squares..."

After the decimation of their population by the rampant Kabuto, the Sea Reapers fled to the waters surrounding their treasured isle, from where they now launch attacks on their persecutor. You guide a young Reaper called Delphi, equipped with both mystic powers and a magical bow, and are able to traverse the island in a matter of moments.



The Meccaryns
One of *Giants'* neatest tricks is the way in which the Meccaryn gang fight together. You take control of a central character, with the others following your lead with increasing ability as the game progresses. As seen in Activision's superb *Battlezone*, the PC's function keys are assigned to simple commands which can be used to send the other Meccs off on various tasks, such as gathering meat for the demanding Smarties. Watching the group work in unison is rewarding in itself.

In terms of the plot, the Meccaryns lead an bizarre all-star cast. Five cockney space aliens – Baz, Tel, Reg, Gordon, and Bennett – *en route* to their annual lads holiday in Planet Majorca, are attacked by the notorious 'Gibbon' fish, leaving them stranded on Kabuto's island. Equipped with jetpacks and a selection of increasingly murderous weaponry, the Meccs must find a way home.



The Smarties
As you advance through the levels you encounter timid characters called Smarties (who look a bit like the Martians in Tim Burton's 'Mars Attacks!'). Playing as the Meccaryns, if you keep the Smarties happy by protecting and feeding them, achieved by slaughtering the herds of alien cattle which roam the island, they reward you with various items. The best **Edge** saw were mobile bush hideouts, looking like clumps of shrubbery shuffling across the landscape – much like *Metal Gear Solid*'s famed cardboard box.

The best PC in the

It seems like only yesterday that the hottest piece of gaming hardware in the home carried a Commodore badge. But what happened to the Amiga, once the most durable of platforms? And why was its passing so lamentable? **Edge** looks into the legend

It is now over 15 years since the Amiga was first publicly demonstrated at the winter CES show in New York. In the time since it was created, this platform has arguably had more impact on the computer games industry than any other, and is a major part of the reason the UK has such a high-profile development community today.

The Amiga itself was the brainchild of **Jay Miner**, now widely regarded as the 'father' of the Amiga. Miner started his career in electronics, drifting between technology startups in the golden age of Silicon Valley, before landing himself a role at Atari, working on the 2600, before going on to help design both the Atari 400 and Atari 800 home computers. His ambition, however, was to get involved in newer technology and produce a 16bit home computer. As he recalled in an interview given in 1992, "We had just finished the Atari 800 box and they were not about to spend another umpteen dollars on research for a 16bit machine. The processor chip itself cost $100. RAM was also really expensive and we would have needed twice as much. They couldn't see the writing on the wall and they just said 'No,' so I quit!"

The financing of a new computer was not something Miner could undertake himself, though. While considering how he could get backing, he went to work for a small startup company called Xymos. In the meantime, more staff at Atari were quitting the company. Many of the game programmers felt slightly miffed that they had worked hard creating games for the various Atari platforms – which were selling faster than anyone had ever dreamed – but they weren't getting much credit, or bonuses. A number of them asked for a pay

world

rise, or at least to be put on a small royalties scheme, and when Atari refused, they quit, too.

One of these wage rebels was Larry Kaplan, who, along with three other former employees, founded a new company called Activision, with the simple idea of continuing to use their talents to create new games and selling them themselves. (But that's another story...) Kaplan subsequently left Activision, as he wasn't enjoying the job as much as he had expected, and got in touch with Miner, remembering his dream of creating a 16bit computer. In 1982 they joined up with Dave Morse, ex of Tonka toys, who'd been approached by some investors who wanted him to start up a videogames company and develop a new console. It seemed like a good idea at a time when games machines were popular and the fastest growing area of the entertainment industry.

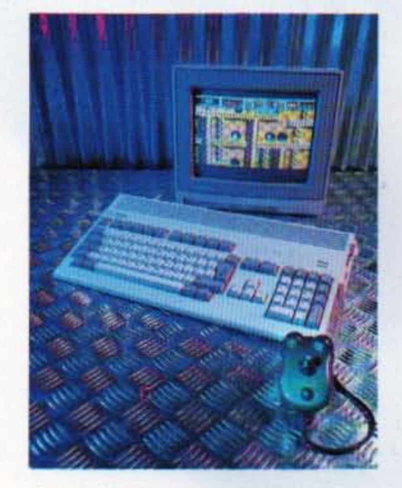
Creative collective

Miner realised that he wanted to make a proper computer, not just a games console. He shared his ideas with Morse and got a good reception, but neither of them told their investors. Soon their group, which changed its name from Hi-Torro to Amiga (Spanish for 'girlfriend'), was joined by a number of talented engineers and programmers, not all of whom might have found employment at some of the more conservative establishments of the day. As Miner recounts: "I was allowed to take my dog to work, and that set the tone for the whole atmosphere of the place. It was more than just companionship with Mitchy [the dog] – the fact that she was there meant that the other people wouldn't be too critical of some of those we hired, who were weird, quite frankly. There were guys coming to work in purple tights and pink bunny slippers. Dale Luck [software engineer] looked like your average off-the-street, homeless hippy. In fact the whole group was pretty laid back. But I wasn't about to say anything – I knew talent when I saw it."

In his plan to make the Amiga a full-blown computer, Jay Miner found an ally in Carl Sassenrath. At his interview for a job designing the OS, Sassenrath was asked what he'd really like to design. He replied that he wanted to make the OS multitasking. Consequently Sassenrath produced the Amiga's kernel, Exec, which made it the world's only multitasking home computer.

RJ Mical, previously from Williams, the coin-op company, was given the task of writing *Intuition* – the messaging and windows structure that gave the Amiga a proper WIMP environment. "RJ pretty much did it all himself," noted Miner. "He was holed up for three weeks and came out just once to ask Carl Sassenrath about message ports. That's it. Really! He wrote *Intuition* and then went on to do the graphics package, *Graphicraft*, as nobody else could do it right."

Miner himself was having fun designing a new custom co-processor which included a blitter for rapidly moving areas of graphic RAM. "We came up with all sorts of functions for the blitter. Line-drawing was added much later at the request of Dale Luck, one of our software guys. This was about two weeks before the CES show where the Amiga was unveiled. I told him, 'We can't put that in there,' as the chips were nearly done and there wasn't enough room. But he fiddled about and showed me what registers were needed, so in it went."



The graphically enhanced A1200 sold well, but lacked cutting-edge features



The A1500 was a SCSI-less variant of the A2000, to suit smaller pockets

"I was allowed to take my dog to work, and that set the tone for the whole atmosphere of the place. There were guys in purple tights and pink bunny slippers. But I wasn't about to say anything – I knew talent when I saw it" Jay Miner

RJ and Dale Luck became known as the 'Dancing Fools'. As the deadline for the CES approached, they had to spend longer and longer hours at work debugging critical software. In order to stay awake and alert, they played loud music and took regular breaks to dance about and keep themselves active. At this stage virtually everyone was working around the clock, but nobody seemed resentful. RJ Mical revelled in it: "We worked with a great passion. My most cherished memory is how much we cared about what we were doing. We had something to prove... a real love for it. We created our own sense of family out there."

Hard times

In spite of being a great success at the show, the Amiga was in financial trouble. Against a background of general slump in the games industry (at this time, large numbers of *ET* cartridges for the Atari VCS were being dumped into a big hole in the desert, see **E**58), the investors were nervous. Although the team had the capability to turn the Amiga into a full-blown home

"We worked with a great passion. My most cherished memory is how much we cared about what we were doing. **We had something to prove... a real love for it.** We created our own sense of family out there" RJ Mical

computer, they were running short of cash and couldn't pay the bills. They managed to stave off debts (at one stage Dave Morse reputedly took out a second mortgage to pay the wages) until they had silicon ready, and made it to the next CES show with an almost complete machine – but it couldn't last. Their only chance of seeing the Amiga through to the end was to sell the company.

Jack Tramiel, then boss of Atari, desperately wanted the 16bit custom chip technology the Amiga team had created. He offered to bail them out with half a million dollars, on the condition that they either paid it back within 30 days, sold out to Atari, or came to a deal on the rights to the chipset. "This was a dumb thing to agree to, but there was no choice," Miner recalled later. Allegedly, the money was all spent the next day.

In a rare fit of prescience, and possibly just to get one over on his old boss Tramiel, Irving Gould and Commodore then stepped in, offered $4.25 a share and snatched the company from under Atari's nose. Tramiel was reported to be livid, and decided to produce a 16bit machine without the custom chipset, a machine which due to its more simple nature he was able to complete far quicker than the Amiga – the Atari ST.



The A2000 had all the missing features the original Amiga lacked thanks to cost-cutting. It was an expensive unit, but proved a popular choice in the US

Tough at the top

Quibbles over costs and design issues kept the Amiga from launch for a further year and a half, but once it appeared on the scene, and was followed by the A500, there was a certain inevitability of its domination of the 16bit market. Even when selling at £100 more than the rival Atari ST, it seemed better value, and it was an unpopular Santa Claus who voted with his wallet and delivered the latter on Christmas morning.

And still the frantic pace of advancing and perfecting the Amiga continued. **Dave Haynie** was a Commodore engineer who joined the Amiga project as soon as he could: "I worked 15-20 hours a day, for months at a time. I kept a sleeping bag under my desk. I dreamed about the projects I was working on, and occasionally figured out problems in those dreams. The pace was incredible, yet all we wanted was more of it. This was the absolute pinnacle of the engineering arts."

The early years of the Amiga were remarkable for the machine's unassailable momentum of popularity, and the quality of the software that became available for it. A significant number of today's best-known software designers, artists, musicians and programmers started out on the Amiga, and many publishers who had started out on the 8bit platforms became household names with the help of this potent new platform, especially when the cheaper, and in some respects more powerful, A500 appeared on the scene.

There is some dispute about the first commercial game to be released for the Amiga, and it does depend a little on which country you were in. *Mind Walker*, a puzzle game, has the strongest case, but perhaps the most significant early title was Cinemaware's *Defender of the Crown*. A graphical adventure/strategy title which didn't exactly shine in the gameplay department, its graphics and musical score were nevertheless something special. The artists responsible worked wonders with the Amiga's capabilities, leaving onlookers convinced that this was a machine they simply *had* to have in their home.

Although more expensive than the ST, the elegance and power of the Amiga was something that potential owners aspired to and developers wanted to work with. A proper OS with lightning fast graphics, a powerful 16bit processor and huge quantities of memory (512K being a lot in those days) were luxury to play with.

It also appeared at the right time. In the early '80s, schoolkids grew up with computers like the ZX81 and later the Spectrum and



The Amiga 3000 was, according to some of Commodore's engineers, the last Amiga to be built without financial and technological compromises



Carl Sassenrath
A legend in Amiga circles, it was Sassenrath's idea to make the Amiga multitasking. Currently working on Internet software.



RJ Mical
One of the original Amiga team, Mical was responsible for the *Intuition* part of the Amiga OS, and many of the early demos.



David Pleasance
Ex-MD of Commodore UK, Pleasance attempted a management buyout when the company floundered in 1994.



Irving Gould
As boss of Commodore, Gould bought the Amiga from under Atari's nose, but later presided over its fall from favour.



At over £2,500, the flagship A4000 was only really affordable by graphics and video professionals. It was also used by NewTek for its legendary *Video Toaster*

Joe Pillow

In the original Amiga ROMs, someone found space to hide a list of the names of the original Amiga team, which would be displayed upon a certain combination of key presses.

One of the names listed might have caused some confusion among people finding the list – Joe Pillow. He also crops up in some early developer material, but a check of the roster at Amiga will reveal nobody by that name ever working there.

The Amiga shown at the winter CES in 1985 was really a prototype. The main custom chips had been worked out on a series of very complicated breadboards, linked together with literally hundreds and possibly thousands of wires. The construction was delicate, the components were sensitive and the Amiga team had to somehow transport the whole setup to the other side of the continent by plane. The prototype boards obviously couldn't go in the hold or the overhead locker, so they had to book an extra seat on the flight, where the boards rested in relative luxury on a couple of pillows.

Some sources claim that the actual airline seat was booked in the name Joe Pillow, but it's likely this is just the name the Amiga team gave to the rather unconventional passenger.

Commodore 64. Although there was a large market in commercial games, most owners also wrote a lot of games themselves, usually with the help of magazine listings. The first generation of teenagers brought up with computers were just reaching adulthood at the time when the Amiga was launched.

Unlike the games console market, developers of Amiga software weren't required to pay any license fees to anyone, or even have their software approved. Because the Amiga used standard floppy disk drives, there were no costly cartridges to manufacture, and no expensive duplication equipment required. Programmers could simply write a game and duplicate it themselves with no extra equipment – the only resource they needed was time.

Development tools were pretty easy to come by, too. The shareware concept really took off on the Amiga (even today the Amiga boasts the largest single repository of shareware, the Aminet), and even commercial tools were cheap. Electronic Arts probably started off many a career with its excellent bitmap art package *Deluxe Paint*. It was not only fantastic, it was also much cheaper than equivalent 'professional' tools on other platforms, and was soon bundled with the machine.

The late '80s and early '90s saw an emergence of a tidal wave of energetic creative talent in the games market, and the Amiga gave birth to a great many game genres. Without the Amiga these visionaries would have still emerged, of course, yet Commodore's machine allowed them to realise some of their best work. It's certainly hard to see how, working pretty much on his own to begin with, Peter Molyneux could have created *Populous* on a Mega Drive.



Although the notorious Jeff Minter started on 8bit machines, and was a notable Atari ST supporter, as a lauded code genius he also had a soft-spot for the powerful Amiga

There really are dozens of momentous, world-changing games in the history of the Amiga, and many game developers and publishers who owe their current status to this now unfashionable and maligned platform.

Commodore crashes

It's difficult to say when things really started to go wrong for Commodore, partly because it began mismanaging the Amiga from day one. The first machines were marketed as business tools, and then, especially in Europe, as simple games units rather than computers, selling them way short.

The company had always been involved in the manufacture of PC clones, with varying degrees of success. Its idea of creating a 'bundle' of hardware components and software and selling it as a complete solution at a low price did really well. Of course, when it became apparent that this marketing strategy was incredibly successful, everyone else joined in. Commodore may have had the ideas, but was soon outclassed at selling them. Over the coming years, a lot of time and money was invested trying to recapture the share of the PC clone market it had once owned, hampered by a now sprawling and complicated corporate structure and too little attention to feedback from regional offices.

In North America, other PC manufacturers were having some success in selling their systems for home use, and the PC began to pick up pace on the games scene. Commodore did virtually nothing to improve the low-end Amiga for six years, by which time the A500 was under increasing pressure from second generation consoles and the increasingly ubiquitous PC.



If some figures are to be believed, the classic A500 sold somewhere in the region of two million units in the UK



The A500+ replaced the A500, only to be superceded itself a few months later

became weary of top-level decisions taken compromising their designs on the basis of costs. The A4000, the flagship of the Amiga range, had to be redesigned to fit into a PC-style case because Commodore bosses wanted to get rid of some of their excess stock.

Similarly, designers were not allowed to include a slightly more expensive SCSI interface, but had to settle for a much slower IDE type, and the new custom chip design was halted prematurely, leaving the Amiga with extended graphics capabilities, but without the 16bit sound to go with them. Legendary hardware engineer Dave Haynie reckoned then that the best of Amiga engineering was in the past: "This kind of frustration is the worst it gets. When doing your best isn't good enough, at least you can say you fought bravely. When you are told you won't be allowed to deliver your best, the results are devastating, both personally and in the resulting designs."

"When doing your best isn't good enough, at least you can say you fought bravely. When you are told you won't be allowed to deliver your best, the results are devastating, both personally and in the resulting designs" Dave Haynie

Perhaps the final big effort behind Amiga technology was the launch of the CDTV. Carl Sassenrath, who was heavily involved in the project, recalls it as having been his happiest time at Commodore: "Irving [Gould] cheered us on (and paid for everything), the hardware was done in Japan by several companies, the software was done here [in Los Gatos, not at west Chester, Commodore's HQ] and the dream was to build the perfect consumer-oriented Amiga home computer for under $300."

Unfortunately, Commodore's diluted message about what the CDTV was actually built to do didn't prepare it for success. Commodore bosses initially forbade it to appear in computer stores, promoting it instead in hi-fi outlets – where it looked like an expensive CD player instead of the world's first true multimedia home computer. In many ways it was ahead of its time, although it certainly gave the rest of the computer industry ideas about their next machines.

Following this failure, the Amiga platform and the engineers working on it soon felt they were being under-resourced, and

By the time the CD32 came out, although still more advanced than anything else on the market, confidence in Commodore's ability to market and support the platform adequately was fading fast. Financial problems compounded, and due to the complicated connections between the various Commodore-owned entities around the globe, a domino effect of financial disasters caused the company to fall apart before too many people really knew what was going on. Commodore went into liquidation in May 1994. Just one month later, on June 20, Jay Miner finally succumbed to the kidney problems which had been troubling him for years. He died, aged 62.

Looking ahead

The original Commodore crash is something the Amiga never fully recovered from. Amiga supporters were hoping that another company would soon take over the rights and patents to the platform and start manufacturing again. Unfortunately, Commodore's finances proved tricky for the liquidator to unravel, and there was a year of limbo ahead for the Amiga until finally its assets were sold at auction in New York. The recipients weren't the management buyout team, or the likes of Dell or IBM who attended, but a middleweight German PC manufacturer by the name of Escom.

Though there was much relief when the company claimed it would support and develop the platform, this soon turned to frustration as nothing was accomplished. Now more and more developers decided to scale down their Amiga activity – if there wasn't going to be any support for the Amiga any more, it was pretty risky committing themselves to producing games for it, especially any with lengthy lead times.

Escom failed to do anything with the Amiga, and made the

A computer with bounce

At the CES where the Amiga was first shown, one piece of software made everybody stop and take notice. It wasn't anything terribly complicated by today's standards – in fact, it was technically less demanding than many of today's screensavers – but in an age of black-and-white Macs and blocky PC graphics it stood out.

The *Boing* demo was simply the red-and-white chequered sphere, which span around and bounced about the screen, with suitable sound effects when it rebounded off the sides of the display. This demo was actually written at the show itself (as was a lot of the software), by RJ Mical and Dale Luck. The 'boing' noise was a distorted sample of another Amiga employee, Bob Parasseau, hitting a garage door with a foam baseball bat.

The demo proved so popular that the Amiga team used the *Boing* ball as an unofficial logo for the Amiga, but for reasons lost to time, Commodore demanded that they change it to the easily recognisable, though dull, multicoloured tick. In later years, with the resurrection of the Amiga by Gateway, the *Boing* ball has finally become the official Amiga logo.



The Amiga pioneered CD as a games and multimedia format through the introduction of CDTV and devices like the A570 (above), an A500 CD add-on

situation somewhat worse by retaining a number of the more incompetent members of the former Commodore staff in important roles. Ironically, it was its own overconfident ambitions in the PC market, opening a series of High Street retail outlets around Europe, which led to its financial ruin a year later.

The Amiga was then subject to another period of limbo while Escom was wound up. Delays led to further defections on the part of

The industry not only needs home computers that you can play great games on, but one which will allow young people to experiment with writing their own, because that's where the games programmers of the future will come from

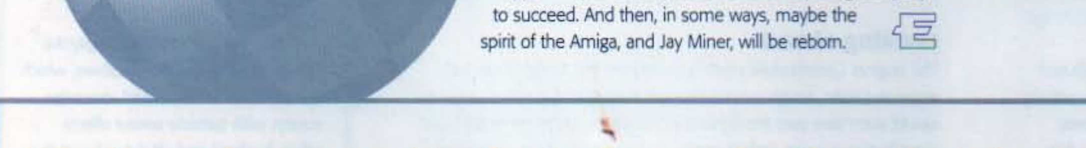
developers, with even stalwarts like Team 17 and Sensible Software pulling out of the Amiga market.

Finally, in 1997, PC giant Gateway bought the rights. Aside from the intellectual property it was acquiring, it was also interested in the Amiga's potential, mainly because of the strong and vociferous response it got from the remains of the Amiga market. So far Gateway has promised new hardware and a new OS, but the machine it is planning will not be an Amiga, although it could still be a success.

The games industry needs home computers, of course. Standard-issue consoles cannot be programmed, and Sony's Yaroze system isn't a self-contained unit, which has repelled many prospective home programmers. The industry not only needs home computers that can be used to play great games on, but one which will allow young people to experiment with writing their own, because that's where so many of the game programmers of the future should come from. Developing for *Windows 98* may be easy, but it remains an expensive proposition for many school children and students, and the PC platform is beset by legacy issues. A new machine designed from scratch would be ultimately cheaper, faster and more efficient. Maybe Gateway's dreams won't be realised, but the opportunity is certainly there for an enterprising company to succeed. And then, in some ways, maybe the spirit of the Amiga, and Jay Miner, will be reborn.



The stunted precursor to the A1200, the A600 was the first in a series of Commodore's engineering blunders



Windows of opportunity: the Amiga applications that shaped the future

Deluxe Paint The original bitmap art package. You might be able to create great works of art in *Photoshop* these days, but for designing bitmap graphics for use in games, *DPaint* (as it became known) was the best. So good, in fact, that companies such as Psygnosis continued to use *DPaint* for designing game graphics long after it stopped developing Amiga games. Many game developers rate it as the most important piece of Amiga software.

Lightwave Many films and TV series have used NewTek's *Lightwave* for their computer-generated effects, including 'Babylon 5', 'SeaQuest DSV' and 'Star Trek: TNG'. The software subsequently appeared on many other high-end graphic platforms, and most recently was used extensively on the film 'Titanic'. Other notable 3D packages which began life on the Amiga include *Cinema 4D* and *Imagine*. The Amiga itself is still valued as a movie-making tool because its display can be easily synced to film speeds, and because it can generate standard PAL and NTSC signals straight out of the box.

Minigen This was a genlock, the first cheap genlock which allowed anyone to overlay computer graphics onto a live video stream. Suddenly you could title your own video productions. An Amiga and *Minigen* were the original desktop video setup.

SoundTracker The original program to use the now-ubiquitous MOD format. *SoundTracker* was the first music package to be approached from a programmer's point of view. No crotchets and quavers to worry about, just hex values and timing signals.

Vista Virtual Reality Labs created landscape rendering on the Amiga. Using topographical data, it was possible to 'virtually visit' anywhere. Arthur C Clarke was so impressed, he wrote a book about Mars, illustrated with *Vista* generated images.

Distant Suns Astronomy comes to home computers. Long before *Red Shift*, Amiga owners could actually see accurate representations of the stars above their own home, and take animated trips through the solar system.

Scala Desktop multimedia presentation at its finest. Even after Scala developed a PC version, it was still using Amigas for installed systems because they were more reliable and easier to maintain (not to mention cheaper). When you travel on an HSS ferry, stay in a hotel or visit a large record shop, there's a good chance there is still an Amiga behind the in-house information system.

Amiga: the 16bit hit factory

From the late '80s to the early '90s, the Amiga games scene was bristling with innovation and many current game genres were born out of this creative era. This is just a small selection of the Amiga titles that can claim to have influenced a new generation of games

Defender of the Crown (1986, Mirrorsoft/Cinemaware) Although lacking on the gameplay front, this game was just so beautiful to look at (and also one of the earliest commercial titles for the format) that Cinemaware sold almost as many copies as there were Amigas.



Dungeon Master (1987, FTL/Software Heaven) The original icon-driven, almost realtime RPG. In fact, one of the very first true RPG games. Millions of miles of dank corridors have been programmed in its wake.



Laser Squad (1988, Blade) Julian Gollop managed to set the standards for turn-based strategy games with this effort, and countless variants followed. He later reprised this genre with the seminal *UFO: Enemy Unknown*.



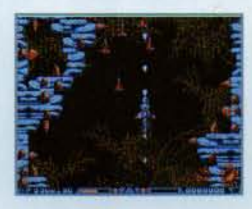
Populous (1989, EA/Bullfrog) The title that brought the term 'god game' into being. Probably the most original game concept of the era and one which Peter Molyneux developed for the Amiga almost by accident (see E66).



Batman the Movie (1989, Ocean/Jon Ritman) Although not incredibly original in terms of the game elements, Ocean parted company with tradition and produced a film licensed game that was actually very playable. Commodore then also took the nonconformist step of including it in an Amiga bundle – probably the only decent computer game to ever be sold this way…



Xenon II (1989, Mirrorsoft/ImageWorks/Bitmap Brothers) The follow-up to its hit of the previous year, this was the definitive slinky shoot 'em up from the Bitmap Brothers. The codeshop's patented graphical shading techniques went to work like never before, and the result was as glorious to look at as it was to play.



Kick Off (1989, Anco) The first football game that was actually anything like playing a real game of football. It inspired *Sensible Soccer*, still considered by many to be the ultimate computer football game (though not in the recent PlayStation version).



Lemmings (1990, Psygnosis/DMA) This puzzle-based classic obviously went on to major cross-platform success, and although Psygnosis was already financially successful with titles like *Shadow of the Beast*, this game made the company a major player.



F1 Grand Prix (1991, Microprose) As a follow-up to his classic *Stunt Car Racer*, Geoff Crammond produced the first Formula One title that could honestly be called a racing car simulator, and not just a game.



Railroad Tycoon (1991, Microprose) Although Sid Meier didn't actually code his games on the Amiga, both this asset management classic and future Meier inspirations like *Civilization* were most successful on the Amiga platform.



Secret of Monkey Island (1991, US Gold/LucasArts) Point-and-click adventuring at its best. Hours of entertainment delivered in a well-crafted and amusing style. LucasArts' finest hour.



Dune (1992, Virgin/Westwood) Westwood's original realtime strategy groundbreaker, several years before PC owners were thrilling to the remake in the form of *Command & Conquer*.



The Settlers (1993, Kompart/Blue Byte) *The Settlers* is essentially a genre in its own right, and Blue Byte created it on the Amiga, along with other groundbreaking classics such as *History Line*.



Worms (1995, Team17) Although not as influential as the other games here, this is another typical Amiga success story. The programmer got his big break by entering *Worms* (essentially a '90s update of *Tanx*) in a competition run by Future Publishing's *Amiga Format* magazine, and ended up helping Team 17 in creating one of the best-selling games of the year.





reality bytes

Entertainment software is, by its very nature, constantly caught somewhere between pure fantasy and the real world. Edge considers the merits and the misdemeanors of the true-to-life videogame

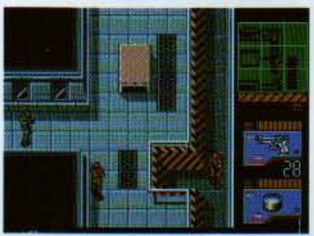
In 'East Coker', TS Eliot writes 'Human kind cannot bear very much reality.' Videogames, however, have long aspired to replicate, or at least pay tribute to, the real world in which their storage medium plays an infinitesimally small part. It's a common event for critics of entertainment software to ascribe 'realistic' as a desirable attribute. But how long will it be until a reviewer breathlessly describes a game as 'real'? This distinction, though tiny in linguistic terms, is huge.

It's an irrefutable fact that hardware is the shackle that binds the software industry's most *creative* of creatives. Shigeru Miyamoto once related that the *Zelda* games were inspired by his experiences as a boy. Fond of exploring woods and caves as a youth, the adventures of Link are, in effect, those of a young Miyamoto-san writ large. Successive generations of Nintendo hardware have added substance to his original dream. In the first *Zelda* game, he introduced the concept of exploring a world. In *Zelda: A Link to the Past* on the SNES, greater storage space and processing power allowed him to lavishly furnish and populate Hyrule. *Ocarina of Time*, the zenith of the series, goes one step further in offering sounds and sights markedly more tangible than those of previous episodes. The sense of wonder and anticipation that marks the discovery of each new area is not, **Edge** would speculate, too far removed from that which once captivated a young explorer and fledgling genius.

There are two ways in which a game aspires to 'realistic' status: content, and appearance. A game may possess either, both, or neither. *Ocarina of Time* is not a 'realistic' game on one level, in that its environs are rooted in fantasy. By providing a 3D play area, though, and the means by which players can move and gaze freely, its 'worldly' credentials are assured. Its antithesis, perhaps, is *Grand Theft Auto*. Visually, DMA's opus appears every bit the videogame. Its premise and content, by contrast, can be regarded as 'real'. Its references to drugs, casual killings and (admittedly, rather tame) allusions to sex are at odds with its old-school, top-down perspective.

Videogames are changing. So, too, is the manner in which they are developed. Designers now toy with advanced physics, eminently believable animation and even the concept of emotions. Although the Spryos, Crash Bandicoots and Abes of the industry continue to offer beguiling fantasy tales, the 'realistic' game is maturing. From hitting a well-textured wall in *Colin McRae Rally*, to embracing authentic physics in *Trespasser*, and being told to 'fuck off' by a *Kingpin* cast member, the point where gamers can live semi-convincing lives vicariously is no longer a pipe dream. But this was not always the way...





***Metal Gear Solid* (top) is praised for its stealth-based action, yet its attention to realism was championed by the original (above) 12 years ago**

Back in the day...

"*Ant Attack* on the Spectrum was great," says DMA's **Dave Jones**. "It allowed players to feel free, that they could explore the city as they saw fit. Another notable example was *Fairlight*. When you killed guards, you could pick their helmets up, stack them and use that new platform to jump on things. If you couldn't get the height, you could move a table, and then stack things on the table. The sense of 'I'm in a real world, I can do anything' was impressive. Even in games today, it's hard to do that – the physics just aren't there."





***Pole Position*'s arcade take on F1 wowed coin-holding players – much as *F1GP2* later wooed PC gamers**

The software industry's programming pioneers were, with hindsight, a remarkably innocent breed. It's notable that the most celebrated BBFC certification of a Spectrum game was the graphic 'text' adventure, *Frankenstein*. Astonishingly, it was submitted at its developer's reportedly 'hopeful' discretion and, as the tale goes, it actively campaigned for a 15-certificate. At this point in their evolution, games couldn't hope to look realistic. Similarly, the simple design of the average 8bit game invariably couldn't support a convoluted, involving, movie-like plot. Even the crafting of a simple house location presented early codeshops with innumerable complications. If an artist drew a chair, the logical progression was that a table was required to accompany it. That, in turn, meant sketching a sink for the kitchen and a toilet for the bathroom. Such memory-intensive detail was prohibitively difficult to incorporate into any given blueprint. Thus, the shoot 'em up prospered; the outlandish sprite flourished because the human form was difficult to recreate; the elementary 2D platform game became a staple of any given release list. But there were occasional, surprising exceptions.

Bo Jangeborg's *Fairlight* was a game with a fantasy brief. Owing more than a passing nod to Ultimate's *Knight Lore*, its isometric graphics were once considered best of breed. Its real innovation, though, was the introduction of physical attributes for room furniture. Barrels, tables and other such objects were given 'values' that defined their weight and their inertia. The ability to interact with surroundings, albeit on a simple level, was a crucial development; the fact that such objects were 'real', doubly so.

Take a glance at most recent adventure games, and it's surprising to note the absence of this feature. There are a number of explanations. Chief among these is the simple fact that, by removing the boundaries that prevent a player from pushing a chair, table or cupboard, a designer introduces a variety of complications. Consider this simple example. Should a map editor wish to add a settee to a living room, they have to ensure that an object can't be manoeuvred into a position where it

FAIRLIGHT'S REAL INNOVATION WAS THE INTRODUCTION OF PHYSICAL ATTRIBUTES FOR ROOM FURNITURE. THE ABILITY TO INTERACT WITH SURROUNDINGS WAS A CRUCIAL DEVELOPMENT

blocks an entrance or exit. This sets limitations on the layout of that location. There's also the simple fact that, by giving players yet another variable to consider, programmers can over-complicate a project. As teams strive to create games of escalating complexity, there's an ever-present danger that the 'game' could be lost beneath the weight

REALITY CHECK



3D MONSTER MAZE **ZX81**

The debut of the firstperson perspective and, would you believe, content-sensitive sound – the ZX81's overworked processor made inadvertent noises to accompany the monster's approach. Don't laugh...



NIGHT DRIVER **ARCADE**

The gaming equivalent of drawing a black bear in black woods attacking a black campsite at night. At the time, though, a multitude of gamers were utterly convinced. Not that they'd admit it now.

sounds familiar



With an invisible alien only sensed by sound, *Enemy Zero* was an interesting concept – but not, it must be said, a great game. An aural masterpiece, nonetheless

The evolution of sound in videogames remains several paces behind the advances in graphics technology. The necessary hardware, of course, is available – especially for the PC, where 3D sound cards are now very affordable. Lamentably, the will and effort on the part of a given developer often is not.

Early games used sound effects to accompany (and inform of) a play 'event'. Firing in *Space Invaders*, jumping in *Jet Set Willy* or using the thrust control in *JetPac* elicited an appropriate noise. This 'one action, one sound effect' standard is, astonishingly, still used in the majority of modern games. Real life has an immeasurably larger amount of aural detail. Only now, though, are certain developers attempting to replicate that.

"In *Wild Metal Country*, we've effectively 'rendered' sound," says DMA's **Dave Jones**. "Every single element in the game has its own sound attached. In 3D graphics, you have levels of detail, to let you know when something's far away. We've done the same with sound. If you see a tank that's maybe a hundred metres away from you, it'll just be generating one sound – the engine drone. As it gets closer, it starts to overlay that with the noise of the individual wheels squeaking as they turn around. As it gets closer still, you can hear the sound of the tracks crunching on the gravel.

"This kind of detail means that the sound engineer has to do as much work as an artist. They have to look at every different situation for each vehicle – like the gun rotating or the gun firing, and then build multiple levels of detail and radiate those sounds based on the 3D world. You have to give as much consideration to audio as you do to art. It's still a consistently disregarded aspect of games. People tend to say 'We've finished the game – let's do some sound.' But it has to be done from the start, and it should be considered equally important as your art resources."

of play-stifling features. An 8bit game, though, could isolate one key realistic attribute and use it as its *raison d'etre*.

With limited processing power at their disposal, early developers – often one programmer, one artist – could be outstandingly inventive in their labours. *Mercenary* (1986), for example, saw Paul Woakes create a sparsely furnished, yet – for the time – astonishingly detailed city. Its wireframe world appears embarrassingly basic when set against modern-day firstperson titles, yet few current contemporaries can rival its freeform, non-linear remit. Most codeshops couldn't afford to undertake its like today. They would be expected to add flesh to its simple wireframe visuals, a visible populace to inhabit its exponentially increased number of buildings, and cut-scenes to accentuate the progression of its plot. Even then, after the enormous development costs such a project would entail, retail obscurity could be the lamentable, costly conclusion – as Gremlin's excellent, but relatively unsuccessful *Hardwar* demonstrates.

Unable to replicate real-life sights to any significant degree, many developers of the 8- and 16bit age opted for outlandish or surreal designs. It's no coincidence that many games throughout history have opted for a fantasy brief. It's often easier to create game rules and features, rather than copy or interpret aspects of real life. Those that *did* try to offer a take on realism, however, were just as happy to 'cheat' for effect as the current breed of 3D games. One largely forgotten – but, at the time, utterly captivating – example is Durrell's *Turbo Esprit*. Very much a precursor to *Grand Theft Auto*, it gave players control of a car in a city. Charged with the duty of stopping target cars, you negotiated its various streets and back alleys by moving a vehicle viewed in a thirdperson perspective. Turning a corner involved the game camera 'switching' to that direction – be it east, south, west or north. This was a simple solution to an otherwise insurmountable problem. Additionally, and very much like *GTA*, civilian traffic effectively 'disappeared' once it was out of view.

MANY DEVELOPERS OF THE 8- AND 16BIT AGE OPTED FOR OUTLANDISH OR SURREAL DESIGNS. IT'S OFTEN EASIER TO CREATE GAME RULES AND FEATURES, RATHER THAN COPY OR INTERPRET ASPECTS OF REAL LIFE

The greater processor speeds of 16bit technology allowed programmers and artists to experiment with the firstperson perspective. The scaled sprite came of age in Sega's *OutRun* coin-op; motion capture was championed by the likes of Delphine's *Flashback* and Midway's *Mortal Kombat*; the prospect of a living 'virtual' city further realised by US Gold's ambitious, yet flawed, *Legends of Valor*. But games were still far from convincing in appearance. "When *Virtua Fighter* first came out, it blew my mind," enthuses Confounding Factor co-founder **Toby Gard**. "The first time I saw the original *Microsoft Flight Simulator*, I was quite impressed with that, too. Of course, we didn't know how pants it really looked, but people were putting in their flight hours with it."

New sophistication

"The first simulation that really caught my eye was *Revs* on the BBC Micro," says *Colin McRae* producer **Guy Wilday**. "For me, the sophistication and detail of the mechanics were way ahead of their time – it was the first game with a clutch pedal, I think. It was also the first game in which you really felt like you were driving a single-seater race car round a circuit. The natural progression from this

FAIRLIGHT **ZX SPECTRUM**

Its framerate threatened to grind to a halt in places, yet gamers were willing to forgive *Fairlight* just about anything, such was the sense of involvement its monochrome locations and interactive objects created.



SKOOLDAZE **ZX SPECTRUM**

A revelation – numerous, autonomous NPCs, a cross-section view of a believable environment, and non-linear gameplay. *Skooldaze* was a genuinely innovative game. But where is Microsphere now?







F-22 *Air Dominance Fighter* and *Colin McRae Rally* are titles from different genres which owe the lion's share of their success to their realistic remits

was *Formula 1 Grand Prix* on the Atari ST. The mechanics were just as detailed, but now there were tracks that you could recognise. I remember racing the relevant track before watching the Grand Prix on TV so that I would know what to look out for. And, of course, Jacques Villeneuve used *Grand Prix 2* to familiarise himself with circuits he hadn't raced during his first season of Formula 1."

It's a contentious point, but it's arguable that the two genres that consistently push the apparent boundaries of available hardware are, by nature, the easiest to craft in a 'realistic' manner. Despite the occasional flirtation with a birdseye view, the racing game offers a brand of authenticity that continually endears it to even the most casual of gamers. Indeed, credit for the PlayStation's incredible massmarket success must lie, in part, with Namco's once-astonishing *Ridge Racer* conversion, and the many polished, like-minded titles that followed.

"If *Colin McRae Rally* was totally realistic, the only person who could play it would be Colin! It is important that the realism of the game is balanced with how fun it is to play" Martin Kenwright, DID

The flight sim, conversely, is a niche genre effectively crippled by its increasing realism. The likes of Microsoft's *Flight Simulator* and its bitter rival, the Eidos-published *Flight Unlimited*, boast scenery digitised from real-world landscapes. As games, they make very good simulators. In terms of pick-up-and-play accessibility, they're far removed from their car-based kindred. Military-oriented alternatives are, in general, equally bewildering for all but the most hardcore of PC owners or plane enthusiasts. The reason? Modern air-to-air engagements are a far cry from the RAF-vs-Luftwaffe dogfights that most players would imagine. 'Fire and forget' was not coined as a twee marketing line by munitions-producing conglomerates and the media. It's a term genuinely indicative of the nature of modern aerial warfare. Compound that with the fact that even the much-lauded DID simulators require strict adherence to concepts within convoluted, Bible-like manuals, and the flight sim seems like less play, more work.

The disparity between these two most venerable of genres is perhaps rooted in their respective evolutionary periods. Whereas driving games – and their more innovative features – have been test-driven in the cut-throat arcade industry, the flight sim has long been the sole preserve of the home computer user.

"Gameplay is the key," offers Guy Wilday. "If *Colin McRae Rally* was totally realistic, the only person who could play it would be Colin! We make games that allow people to imagine what it would be like to race a £250,000 car around the world at high speed. It is important that the realism of the game is balanced with how fun it is to play. Colin has spent all his life learning how to be the best rally driver in the world. It would be unreasonable to expect a gamer to do the same." The work of Sega, Namco, Konami *et al* has impressed that fact upon all would-be exponents of the racing game. The flight sim, though, has almost evolved in isolation, preaching to a converted audience.

It's perhaps for that very reason that DID is currently diversifying into what can only be described as more 'mainstream' products. "The brief for *Wargasm* was complex," says DID managing director **Martin Kenwright**. "We wanted to make it look like a state-of-the-art sim, but to make it play like *Pac-Man*. With *Wargasm*, we deliberately avoided complex cockpits and avionics, because we didn't want to get people bogged down in anal-retentive stuff – we wanted people to be instantly addicted to it, yet blown away by the look and feel of the graphics."

There's an irony inherent in the driving and flight sim genres' respective direction in the late '90s. The racing title is at last discarding the frivolous physics of its forebears, and embracing an increased, yet carefully balanced degree of extra complexity. Its airborne peers, however, are following DID's lead and look set to simplify their content in order to appeal to a wider, more mainstream audience. "Even though *Wargasm* may appear fairly straightforward," confides Kenwright, "its technology is more complex than some of our simulators. But it's all invisible to the eye. There's really complicated route-finding and terrain following, like 'find the best, safest route,' etc. There really is a lot of invisible AI underneath."

The message from the two most realistic of game styles appears to be that a happy medium is best. By striking a balance with real-world authenticity and the obvious need to offer a genuinely enjoyable experience, the player gets the best of both worlds. "The most important part of a racing game is the mechanics of the car," says Wilday. "If you crash a rally car into a tree at 120mph and it doesn't behave as you'd expect, you immediately lose that sense of realism. In *Colin McRae* it was just as important that you could make a mistake and recover from it as you could suffer from it."

Unnatural balance

Perhaps the most amusing aspect of any debate on the realistic content of games is that the most salient, commonplace 'real life' event should never be recreated in videogame form. Its name? Boredom. Many would argue that without



TEST DRIVE **AMIGA**

Accolade's first *Test Drive* was a hardy, chunky 3D pioneer – a far cry from the middle-of-the-road fare offered by more recent episodes of the franchise. It was slow, but it evoked a real feeling of 'being there'.



WOLFENSTEIN 3D **PC**

The game that proved that the PC could be a viable, progressive games platform, and the great-grandfather of the modern firstperson shoot 'em up. And horribly immersive to boot – an impressive résumé.

dissatisfaction at any given time any 'enjoyable' pursuit loses its significance. From a philosophical standpoint, **Edge** sees no reason to disagree. But games need never provide this balance, because real life – an unenjoyable career, too much time commuting, a lack of money, and so forth – is already ideally suited to aligning your expectations. And, with few exceptions, it fulfils said task with aplomb. Entertainment software, then, should do just as its name suggests.

"They'll never get too realistic, as that would stop them being games!" exclaims Bizarre Creations' MD **Martin Chudley**. "You'll never get to the point where you won't want to damage your car because it'll take six weeks and £15,000 to repair, or physically assault enemies because you can get arrested for it, or shoot the aliens in case they obliterate your planet. It's the removal of real-life constraints that makes a game a 'game', rather than a realistic – and therefore rather unexciting – simulation of real life."

Instead, developers are concentrating on 'incidental' touches and features; the minutiae that, as a collective whole, immerses the player in a wealth of worldly effects. "That's the way software is going," says Martin Kenwright. "It's all about 'never the same thing twice'. It's Chaos Theory on your PC." Games are slowly but surely becoming notably more subtle creations. As the addition of aesthetic and physical niceties – that is, little details largely divorced from the game 'proper' – become the rule rather than the exception, will we see the introduction of events that may only occur, say, once during a title's lifespan? It's an intriguing prospect. Toby Gard, however, feels developers should resist the temptation to simply fill games with eye-candy of a purely visual nature. "Unless incidental touches have a purpose in the game, details like that are a waste of time to a large extent," he opines. "But, at the same time, attention to detail is fundamentally important, because you can't do something sloppily. That's the difference between a good and bad games designer. You have to make sure that all these elements you're putting together actually have some kind of purpose within the game. It's got to be more than just a pretty piece of window dressing. It should be able to tell you something… give you information, or clues, or whatever – it should be there for a reason."

Naturally, the shift from tightly focused projects on 8bit machines to the huge undertaking that is creating a modern game has seen the development fraternity adapt almost beyond recognition. "We've seen it in the past ten years… astronomical change," says Dave Jones. "And, over the next ten years, I think we'll see another astronomical change. We've been seeing stuff that Sega are doing with their new game, *Shenmue*. And it looks like *Virtua Fighter* set in a city, with all the characters and scenes and so forth. But when you see that, you appreciate that to create a city and fill it with characters is a huge undertaking – and that's without the actual work on the game. Once you've got the city, though, it gives you so much scope. Once you've got your buildings, people, vehicles and AI, you can sit back and think 'Right. What would be fun?' I think we'll see – and need – bigger support teams helping to maintain these worlds."

Half-Life **may be more 'X-Files' than real-world, but its narrative overtones and strategic action element provide an incredibly convincing atmosphere**

New resources

Martin Kenwright, similarly, recognises the resource-hungry nature of the 'realistic' game. "With simulations," he says, "more and more of the world is becoming digitised. You can 'buy in' huge tracts of the planet as databases. Then you can go to a company that specialises in making 3D models – basically, the furniture to populate the world, like houses, churches, roads. So really, people need to ask; do we do all that ourselves, or do we buy it in, and free ourselves up to create a wonderful atmosphere, to do things that are unique. So, you can get the colours right, get the rain, get the lightning, get the wind going. So you buy all of this in, off the shelf, and then put your magic touch to it."

Perhaps the most successful vindication of this concept – that is, to look elsewhere for resources, thus flying against the long-standing tradition of insular, aggressively remote codeshops or designers – is Valve's magnificent *Half-Life*. By acquiring the *Quake II* source code and tweaking it to suit their needs, its creators absolved themselves of the massive responsibility creating a proprietary engine entails. The time this afforded Valve was, wisely, spent creating *Half-Life*'s incredible atmosphere. Toby Gard discusses the merits of *Half-Life* in reference to his work on forthcoming *Galleon*: "It's still very much like *Quake*," he relates, "in that you run round the corner into the

"ATTENTION TO DETAIL IS THE DIFFERENCE BETWEEN A GOOD AND BAD GAMES DESIGNER. IT'S GOT TO BE MORE THAN JUST A PRETTY PIECE OF WINDOW DRESSING. IT SHOULD BE THERE FOR A REASON" MARTIN KENWRIGHT, DID

LEGENDS OF VALOUR — AMIGA

Blighted by bugs and an unfriendly front-end, *Legends of Valour* was nonetheless an ambitious game. It simulated an entire town, with houses, shops, dungeons and – most importantly – independent, moving people.



F1 GRAND PRIX 1&2 — PC

***Stunt Car Racer* deserves a mention for its once-outstanding physics engine, but it's with *F1GP* and its sequel that Geoff Crammond really made his mark. *F1GP2* remains incredible, even today.**



adult themes

A discussion on the increasing number of software titles with 'adult content' is such a broad subject, it warrants a feature of its own in a future issue of **Edge**. It would be wrong, however, to leave this fascinating topic unexplored in an article on realism in games – especially when the opinions of industry figures polled makes for interesting reading.

"I think there is a moral issue," says Confounding Factor's **Toby Gard**. "It's very hard to find a way around it. If you want to do action adventure, and you want it to be realistic, you have to have confrontations of some kind. Most people prefer a game with a grounding in reality. And it's fine as long as it is for an adult audience. But I think some of the ratings stuff... we need to be enforcing it more strongly. Ironically, *Tomb Raider* wasn't meant to be at all gory, as there weren't really any people in it. So we had animals! [Laughs] That was a mistake. It's probably just as bad. The fact that most of them were endangered actually made it a bit sicker, in a way. We're trying to move away from having people die in *Galleon*."

Martin Chudley of Bizarre Creations, believes that software will one day be regulated in a manner similar to visual media. "Games, as they become more realistic, will fall more and more under the same moral guidelines of the film industry. Censor assessment and certification will become compulsory for all titles, not just a voluntary code. However, just as film directors like Quentin Tarantino show horrific and gruesome scenes, there will be games which do get made for the



***Kingpin* is a moral outrage waiting to happen. Should the fact that it's aimed at adults alter that fact?**

segment of the audience that demands them. *Resident Evil 7* anyone?"

Dave Jones, chief protagonist at off-beat DMA Design, is more than aware of how 'adult' scenes within software can excite listless hacks and their rent-a-quote 'sources'. He doesn't approve, however, of those who introduce mature or risqué themes for publicity alone. "If you're doing something properly, as a game, and the engine behind it is fine, it's okay," he argues. "But if you're doing something for the hell of it, then it's wrong. It doesn't come across properly, either. People see straight away that it's a blatant attempt to create hype, because there's no game there.

"With *GTA*, a lot of the stuff people were worrying about was just rumours they'd heard. When they actually got to see the game, they were actually quite disappointed. It was just a game at the end of the day – it wasn't graphic in any way. They'd just heard about all this nasty stuff and they'd got it fixed in their mind that it would be like a video, or something. And when they saw it, it was nothing like they'd imagined."



You don't have to pack your game full of 'real' features to make it appear realistic – as *Ocarina of Time* and *Tomb Raider III* testify

next scary monster who kills you, but it's all done in such an interesting way – like the integration of the story inside the game. I was just playing it now, actually. It's amazing. You know, those are the kind of things we're trying to put in *Galleon*. But they got there one year ahead of us... [Laughs]"

Martin Chudley doesn't think that the increased development periods seemingly indigenous to the 'realistic' game will necessarily lead to the death of the small codeshop. "It *is* possible to do a realistic game with a reasonably sized team," he believes. "Some companies seem to think throwing more and more people at a project

> "SOME COMPANIES SEEM TO THINK THROWING MORE AND MORE PEOPLE AT A PROJECT WILL INCREASE THE REALISM AND MAKE IT A GREAT GAME, AND IT'S JUST NOT THE CASE!" MARTIN CHUDLEY, BIZARRE CREATIONS

will increase the realism and make it a great game, and it's just not the case! For example, *Formula 1* was written from scratch by ten people, with only four full-time artists modelling the 18 circuits... although our guys all worked extremely hard to do it!"

Feeling real

Of course, a game's appearance has an incredible bearing on how a player will interpret it. "I have no doubt that the realism of the tracks had a big effect on the popularity of *Colin McRae Rally*," states Wilday. "We had comments from people from all of the countries in the game commenting on how realistic they were. It's all part of the experience that the player needs to be part of. It's important to have a car that handles great on mud, but you need a cool-looking mud track and effects to make the whole thing really involving."

Simply being attractive, or in three



FIFA SOCCER **3DO**

Not an outstanding soccer game as such – Konami's 16bit *ISS Deluxe* was far better to play – but a 'giant leap' of Armstrong-style proportions for visual and presentational values in football sims. And it still looks good.



THE NEED FOR SPEED **3DO**

Another inspirational moment from EA's 3DO development teams, *The Need for Speed* fused arcade mainstays with simulation undertones. A defining (yet largely uncelebrated) moment in videogame history.

dimensions, doesn't necessarily make a game realistic. Designers actually need to study real-life details, and simplify them, without losing integral aspects. "Well, certainly our company mission, or mission statement, if we had one, would be to create really good simulators," says Martin Kenwright, without a trace of irony. "And the only way you can make a really good simulator is to do one based on reality. It's the foundation of any simulation. We need to create an immersive atmosphere of 'being there'. You have to put realistic, amazing terrain in there, amazing weather-accurate colours. Unless you're doing something like 'Yellow Submarine', bright green sky and blue hills, you have to base it all upon reality, so people can associate with it. It needs to be plausible."

Lara Croft, the poster child of the 32bit generation, was just that when *Tomb Raider* was originally released. "Lara's animation was meant to be pretty realistic," says Toby Gard. "I was pleased, because some people at the time said that they thought it was motion captured. If it's glaring that a piece of animation is one thing or another, that probably means that you're not doing it well enough. It should be that you're saying 'Oh, that looks nice' and not 'Ugh! Motion capture', or 'What bad animation!' It should be transparent." It's surprising that Lara, despite her over-ample bosom and adherence to block-based game rules, is still considered by many gamers to be the most technically sophisticated videogame character around.

Toby feels that Lara's fluid animation was integral to *Tomb Raider*'s appeal. "If *Tomb Raider* provided any kind of lesson for developers," he offers, "it's that it didn't have anything spectacular going for it in terms of its engine, its environments, or its game mechanics. It was just that it had a really good animation system, and that was what drew people in to a large extent. Oh, and [whispers] the character was quite good as well… [Laughs]"







Looks pure videogame, plays like a Blaxploitation script. There's a metaphor inherent in *Grand Theft Auto*'s duality (left), but *Trespasser* (centre) tries to be *too* real, and fails. Perhaps *Galleon* (right) gets it right with its 'stylised' look

Try to imagine *Tomb Raider* with Lara's animation frames cut by two-thirds. Would it be as popular? It's an interesting discussion point. For the sake of argument, let's say that the Eidos cash-cow is far less enjoyable with its protagonist moving like a normal videogame character. What does that tell you? That exceptionally smooth animation adds an unprecedented degree of realism, but the industry has yet to catch on to the fact? Or that a relatively simple concept – in this case, dedicating larger amounts of memory and processor time to a central character – can add a sense of realism that previously wouldn't be considered to be part of a game? The problem, obviously, is that 'relatively simple concept' and videogame designers often appear mutually exclusive.

The art of imitating life

"Real life is easily accessible – it's there for you to copy," says Chudley. "But obviously the artists have to be skilled enough to capture the real feel of a place as well as just the geometry. I would say that getting a city that actually *feels* right is essential, and can really make the game special."

> "If it's glaring that a piece of animation is one thing or another, that probably means that you're not doing it well enough. It should be transparent" Toby Gard, Confounding Factor

There is, of course, another reason why real-world locales can increase the appeal of a game. "I think a good analogy is *C&C* compared to *Dark Reign*," says Jones. "You sit down and play *C&C*, and you say, 'This is a tank, that's a guy. I know that if this tank goes over the guy, it's going to kill him. I know that this tank has missiles, so if I fire at this jeep over here, it's going to blow it up'. But if you take something like sci-fi, where somebody invents their own units, you sit down and think, What the hell is all this? You then have to learn everything about that world. And, I think that puts a lot of people off. It's such a simple thing, but I don't think a lot of developers appreciate that. They think 'Great, sci-fi – we can create our own units!' But the learning curve you introduce with that is huge. People like stuff they can relate to. It's a personal opinion, but that's really how I feel about the subject."

It's all very well adding real-world physics, but if these make a title laborious to play – like DreamWorks' ambitious, yet risible *Trespasser* – they offer unpleasant purgatory, rather than the 'real life' their design brief once promised.

"We're broadening out into more entertainment," says Kenwright. "In terms of reality, what we're going to focus on less now is the complex thousand-page manual, and more on stuff that's based on actual physical reality. We're doing some really good stuff right now, but I don't want to blow the lead time we've got! [Laughs]. Let me put it this way. What we'd like to do would be to model the whole planet. To make it very scalable – to be able to go from blades of grass up to the atmosphere. To be able to introduce real weather. We're going to put more energy into creating effects, like clouds, and weather, and people as well. We're going to try and make people become real."

It seems that striving for visual and, perhaps, 'incidental' realism is the way forward for developers. But, at the same time, the appreciation that a game should be focused and – above all – fun to play is quintessential.

SEGA RALLY **ARCADE**

The arcade industry's desire to sustain a dwindling market led to leaps in graphical standards and play mechanics. *Sega Rally* is one of the most inspirational and 'real' driving titles ever produced.



GOLDENEYE **NINTENDO 64**

With convincingly furnished environments, countless reference points to its cinematic subject matter and heaven knows how many immersive touches, *GoldenEye* is a deserving videogaming classic.



TESTSCREEN

The definitive monthly assessment of the world's latest videogames

Know the score

In **E**61, this section detailed **Edge**'s approach to review scores (now summarised at the bottom left of the page). And while the overall situation hasn't changed (in fact, in some cases certain publications have suffered an increase in their already-augmented review scores to the point where something scoring 80-odd per cent is still termed 'average'), a number of **Edge** readers have voiced confusion over the number of games scoring above average in the magazine's Testscreen section. Some have even gone to the trouble of calculating the average score for a number of particular issues and found the resulting figure to hover around the seven mark. 'How, then,' they argue, 'can you declare that average games receive average scores?'

Other than the fundamental flaw in their mathematical reasoning, there is of course a simple explanation. The observant among you will be aware that **Edge** doesn't review as many games as other multiformat magazines. In fact, in some cases more reviews can be found within an issue of a single-format publication. If you really need telling, there is simply not space within **Edge** to cover every title released in a month for every format.

But then the magazine isn't about quantity. It's about quality for hardcore gamers. This means that every month, the best, most interesting, innovative, hyped or promising games (usually around ten) are selected for inclusion in that issue's Testscreen section. Given the frequently low standard of the majority of titles released, the selection process isn't particularly brain-melting. Occasionally, though, finding even eight titles worthy of coverage within these pages can prove a surprisingly laborious task.

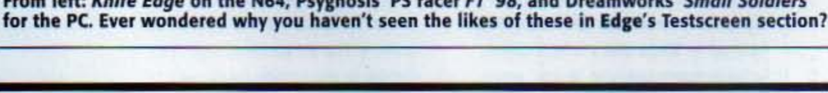
Naturally, there will be disappointments (*South Park*, *Trespasser* and *Mission: Impossible* being obvious examples), but as the games reviewed represent that month's studied selection, even a student struggling with GCSE maths will realise that the probability of the majority of them scoring above average is significantly high.

To save you the trouble, this month's average score is 7.3 out of ten. Last month's was 6.2, an immediately comparable figure given that both issues carry an identical number of reviews (nine). Hence, according to the calculator, this month's selection of games is of a higher quality than **E**68's. All this reveals is that there appears to be a better clutch of games available this month – what really matters is the score of each game, as this should be influential to your purchasing decision. Ultimately, if it isn't in **Edge**, it's often not even worth your time, let alone your money.









From left: *Knife Edge* on the N64, Psygnosis' PS racer *F1 '98*, and Dreamworks' *Small Soldiers* for the PC. Ever wondered why you haven't seen the likes of these in Edge's Testscreen section?

Edge evaluates games on a scale of ten, where five naturally represents the middle value. A game receiving a 'seven out of ten', for example, is a competent title with noticeable flaws but which should still appeal to a considerable range of players – naturally more so to those who favour the title's particular genre. It does, after all, score two points above average and should therefore not be considered as such.

Edge's rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten.

Videogames on the **Edge**

This month Edge has been mostly playing...



Zelda: Ocarina of Time (N64) Nintendo

Yes, it's still in the number-one spot, chiefly because no other game in **Edge**'s history has brought about so many marathon, red-eyed gaming sessions.



Thrill Drive (Arcade) Konami

With so many racing titles continually released for the coin-op market, it's refreshing to find one as addictive as this crash-happy effort from Konami.



Mario Party (N64) Nintendo

It may be a limited solitary experience, but Hudson has developed one of the most entertaining party games around. Unbeatable in fourplayer mode, in fact.



Puzzle Bobble (Neo Geo) SNK

A games room clearout unearthed **Edge**'s Neo Geo CD. Lengthy, rose-tinted stints of *Puzzle Bobble*, *Windjammers* and long loading times ensued.

Index

SEGA RALLY 2









While the arcade game is undoubtedly limited, the ten-year championship ensures plenty of longevity. Sadly, though, the engine sound is generally disappointing and feeble, which proves slightly unengaging



Network play: Although Edge has been unable to experience it firsthand, it has been reported that playing *SR2* in network is reputedly prone to lag and slowdown. The cars contain far less polygons and there is a maximum of only fourplayers per game (as opposed to the six Sega initially proposed)

No, it isn't. Arcade perfect, that is. Furthermore, first impressions are shaky – occasional slowdown, consistent framerate drop from 60 to 30fps every time a corner is taken (particularly in 'in-car' view), and frequent distant scenery build-up are all noticeable the moment your vehicle leaves the starting gate.

Recover from your initial disappointment, however, and you'll soon realise that your TV screen (or PC monitor via the Dreamcast VGA adaptor, see p120), is displaying the most visually stunning racing game ever to grace a living room, bedroom, or office. In fact, it wouldn't look out of place in your local arcade, provided you kept it a safe distance from its Model 3-powered big brother.

More importantly, however, under the polygonal gloss lies a very playable game. Naturally, the arcade game is reproduced in full for anyone wishing a quick five-minute rallying session, but it's the console-specific ten-year championship that's likely to prove the favourite with Dreamcast owners. The structure of each year is similar to the arcade mode, where four special stages are played in succession. There are two fundamental differences, however. The first is the ability to tweak your car's settings in between stages (namely transmission type, gear ratio, suspension stiffness, steering and brake sensitivity, and tyre category), which allows you to correctly suit your vehicle to the road conditions in order to maximise its handling potential.

The second are the stages themselves: as well as the arcade's single desert, mountain, snowy and riviera offerings, Sega has included two extra stages per terrain category (with the exception of Riviera, which remains a solitary stage event), and two further categories (muddy and isle), with a trio of special stages each, bringing the total number of courses to a healthier 16 (there is a further super special stage hiding within the code). It's not a particularly impressive number by today's standards, but thankfully the majority of the extra tracks prove better designed than the arcade's original quartet, with some very technically demanding and enjoyable examples appearing as the championship moves on. It's also worth noting that *Sega Rally 1* fans will be pleased to find the first two stages of said game (complete with minor alterations) make an impressive polygon-boosted appearance as part of the extra tracks.

It's a similar story for the vehicles. The coin-op's eight vehicles (Ford Escort WRC, Mitsubishi Lancer Evolution V, Peugeot 306 Maxi, Subaru Impreza WRC, Toyota Celica GT-Four



Some of the circuits appear more finalised/optimised than others – further evidence of a rushed release?



While the constant 60-to-30fps shift is far more noticeable in firstperson view, the chase-cam view can also suffer from slight slowdown. The sense of speed is more convincingly conveyed than in the arcade version,

Format:	**Dreamcast**
Publisher:	**Sega**
Developer:	**In-house**
Price:	**¥5,800 (£30)**
Release:	**Out now (Japan)**

ST205 and Corolla WRC, Lancia Stratos and Delta Integrale), are joined by an additional 12 motorised competitors, most of which are rewards for finishing each campaign in first position. A few are simply earlier versions of last year's rally editions (such as the Subaru 555 and Mitsubishi Lancer Evolution III and IV models, for example) boasting minute wheelbase or torque differences, but some, like the Peugeot 205 S16 and the Renault A110, are likely to get rally fans frantically practising their digital heel-and-toeing and left-foot braking technique in anticipation.

Once on the stage, they'll be pleasantly surprised to find that the application of such racing procedures do make a difference. Of course, given the game's origin, the action leans towards the arcade side of the authenticity scale, with most aspects of the car dynamics both exaggerated and simplified for 'pick up and play' appeal, but a fair amount of genuineness prevails. Which is why the wild Stratos spends most of its time sideways, with its driven rear axle intent on overtaking its forward-mounted freewheeling equivalent, while the stable 306 Maxi can hardly be persuaded to lose traction (chassis stiffness being a long-admired feature of all Peugeots). It's a shame, then, that the cars don't react more to the actual road surface, as all too often you're left with the impression that they're floating above it.

Given the game's origin, the action **leans towards the arcade side of the authenticity scale,** with most aspects of the car dynamics both exaggerated and simplified for **'pick up and play' appeal**

Still, there's plenty of other visual realism. The various skies and environments are thrilling, mud and dust tarnishes the vehicles' otherwise reflective polygonal surface as they make their way to the finish gate, engines backfire, and snow clings stubbornly to tyres. Observers and flash photography is a further gratifying touch, and it's still just as satisfying to powerslide out of a tight bend and be faced with a spectator scurrying to get behind the protective barrier, camera in hand.

When combined with solid structure and fine gameplay values, this forms one of the more enjoyable, engaging and remarkably addictive arcade-based racing experiences currently available. But, ultimately, you can't dismiss the unrelenting feeling that a little more time in development would have made a significant difference.

Edge rating:

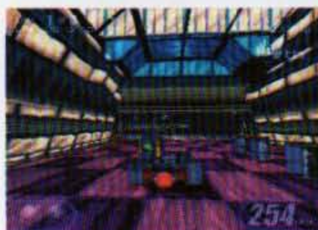
Eight out of ten



Despite insisting on some wild camera movement, the replay mode occasionally offers amazingly realistic sequences

ROLLCAGE









Atmospheric lighting and multiple explosion effects dominate the visual field in Psygnosis' latest racer. Although it falls short, it's not too difficult to detect the influence of predecessor *Wipeout*

Considering the fact that it was a futuristic driving game that more or less made the reputation of Psygnosis in the 32bit era, it's ironic that a futuristic driving game should now arrive to partly repair that racing reputation after the disastrous *F1 98*.

Indeed, *Rollcage* is very much a return to familiar *Wipeout* territory. Apart from the 'futuristic' motif, it's also an incredibly fast, self-consciously unrealistic affair, where getting hold of the right weapon and speed pick-ups can often be more important than driving skills. Take the wheels off these slimline buggies and you'd be forgiven for thinking you'd returned to the *Wipeout* domain, with swooping, swirling circuits, hazy skylines and dark industrial cityscapes. Right down to the arrow speed chevrons, *Rollcage* wears its heritage on its sleeve.

In many ways, however, the game is more of a light-hearted romp than a serious racer. The buggies are designed to keep moving, even when they flip on their backs, and it's possible to scale the walls and drive along the ceilings of tunnels – which proves to be an interesting, if disorientating, experience.

Handling is equally throwaway, pitched somewhere between *Mario Kart* and *Micro Machines*; the lightest of left or right touches is enough to send these things hurtling at a right angle to their previous trajectory. Admittedly each of the six (initially) available cars does have different specs, so you can choose something solid and safe if you're prepared to sacrifice speed, but even that won't offer much protection against the combination of tricky obstacles and ever-present gunfire.

The weapons are certainly fun, though. There are eight different pick-ups available and players can carry two at once. A Worm Hole lets you swap places with the car in front, homing missiles take out strategic pieces of scenery which crash on to the track behind you, and an especially mean-spirited projectile heads straight for the race leader and blows him way off course. Effectively, even the most skillful drivers are likely to come unstuck when missiles, boulders and explosions litter the track, and the merest bump can send you spinning off the circuit.

Unfortunately, when this happens, the process of correction is



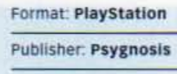
Success in the singleplayer championship mode unlocks several twoplayer deathmatch arenas – mindless fun for a couple of hours





Hitting other cars (top) can be disastrous, as can nudging objects such as lights (above)





Format: **PlayStation**

Publisher: **Psygnosis**

Developer: **Attention to Detail**

Price: **£40**

Release: **Out now**





The power-ups produce an interesting range of visual effects, such as lightning (left) and trippy blurring (above)

agonisingly slow. So – as in Gremlin's equally unforgiving *Motorhead* – the energetic pursuit of a qualifying position can often be lost with one tiny slip-up.

But at least there is plenty of atmospheric scenery to admire while you're stranded. *Rollcage* offers 11 races in the singleplayer league mode, with each taking in a different set of familiar sci-fi settings: the rocky martian surface, the neon-lit nighttime city and the long, poorly lit tunnel system, for example. There are also a number of sub-routes, shortcuts and jumps to make the already fast action even more frenetic.

Elsewhere, the time trial and twoplayer options offer their own selection of circuits, while performing well in the league mode opens up a selection of deathmatch arenas, so players can pretend they've bought *Twisted Metal 3*.

Take the wheels off these **slimline buggies** and you'd be forgiven for thinking you'd **returned to the *Wipeout* domain**, with swooping, **swirling circuits**, hazy skylines and dark industrial cityscapes

With its slick presentation, decent selection of oneplayer, time attack and twoplayer circuits, plus several hidden bonuses, *Rollcage* intelligently takes quite a few pointers from Japanese driving game design.

Diversity and hidden surprises lead to longevity (a rare commodity in non-Nipponese racers), and attention to detail ensures players – already hooked by the visceral thrill of the first few races – have plenty to keep them going.

This, then, is a good, honest driving game, with a few nice design features, some great sci-fi scenery and engaging twoplayer support. What lets it down, is a lack of innovation and the erratic, often nullifying, handling. As for the fact that the best man doesn't always win, and driving over the right power-up at the right time can turn embarrassing failure into easy success, that's not a fault *per se*, it's just a different way of doing things. If only ATD had discovered a few more ways, this impish little racer could have completely replaced *Wipeout* as the key Psygnosis-published racer, rather than standing respectfully in its shadow.

Edge rating:

Seven out of ten



The handling can sometimes prove erratic, which detracts from an otherwise fine game





The twoplayer splitscreen mode is fast and fun, and adds much to the longevity of the title. The deployment of weapons here is even more satisfying

MARIO PARTY



Hudson's latest excursion in to the world of videogaming is an entirely social event, replicating the experience of sitting around a classic family board game











Welcome to Mario's Virtual Health Spa. In order to ward off this approaching Boo, you must frantically spin the control stick to power the lamp behind





Speed is the essence of this fourplayer mini game (top), where the opponents you face are either a handful of willing friends or the CPU

Mario Party is the perfect reminder of how fun videogames are supposed to be. It's not necessarily an indication of the direction all games should follow, but while all around it are concerned with looking increasingly realistic while striving for the inclusion of ever more mature content, it's refreshing to come across something that doesn't take itself particularly seriously (which, given its party game nature, is a rather wise move). Hence, *Mario Party*'s aim is attractively simplistic: as either Mario, Luigi, Peach (Princess Daisy for western players), Yoshi, Donkey Kong or Wario, you must compete against three other members (which can either be CPU or human controlled) of the Mario-related gang. The winner is the one with the most coins and power stars at the end of the game.

The main contest's structure is based around a board game, with every player taking turns at rolling a dice and advancing the appropriate number of spaces. Once all have completed their turn, it's time to play one of the 50-odd sub-games. These usually take the form of free-for-all affairs and occasionally a fourplayer cooperative game crops up.

But there's plenty to do before playing the sub-games. Every protagonist has a board world themed on his, her or its character, and while the designs and colour schemes differ wildly, they all share the same fundamental layout. Alternate routes are offered and the aim is to navigate your way around trying to collect one of the five power stars that are scattered among the mushroom heads before one of your adversaries does the same. There are pitfalls, of course (meeting Bowser usually ends up in lost coins, for example), but then, landing on the right spot can offer the chance to build a commendable lead or make up some lost ground in the form of an extra singleplayer sub-game, or (for a modest sum) the opportunity to steal a power star from one of your fellow players, courtesy of a helpful Boo.

Of course, the board section is nowhere near as entertaining as battling your opponents in real time in one of the many mini games. Their variety is exemplary, ranging from simple race-type affairs (such as a Scalextric-style grand prix), to straightforward battle games (attempting to bounce your opponents








Format: **Nintendo 64**

Publisher: **Nintendo**

Developer: **Hudson**

Price: **¥6,800 (£35)**

Release: **Out now (Japan and US); March (UK)**

The diversity of mini games is admirable, and most feature elements from the *Mario* series (below right)







There's a fair amount of Japanese text, so you may wish to obtain the US version (out by the time you read this) or wait for the March PAL release

off a tiny island while balancing on a beach ball), to more unusual offerings (among others, 'pass the bomb', underground treasure hunting, and a limbo contest). Some work better than others, but with the right crowd, the majority prove immensely entertaining and a fierce competitive atmosphere rapidly develops.

Misanthropes will be delighted to learn that there's a oneplayer dedicated game which foregos the board game aspect, offering a stack of mini games instead (you still play against three CPU opponents) but this is not the main reason for purchasing *Mario Party* – not only is it a limited option, but it also fails to capture the game's essence.

Of more relevance is the practice mode enabling you to perfect your technique on some of the more trickier games, and a shop offering you the ability to purchase items with



The multiplayer option is the key to the real 'party' in *Mario Party*

Hudson has incorporated **many references to the plumber** and his **digital adventures.** As such, many of the hazards found in the *Super Mario* series make an appearance **in most of the mini games**

the money you've collected from previous games – and these come in useful the next time you're up against three cheating, back-stabbing and alliance-forming individuals that some people would call 'friends'.

One of the nicer touches in *Mario Party* is the way Hudson hasn't forgotten the *Mario* theme and incorporated many references to the plumber and his digital adventures. As such, many of the hazards found in the *Super Mario* series make an appearance in most of the mini games. This attention to detail extends to the aural side of the proceedings, too – many of the classic *Mario* tunes are included and every game is accompanied by faithful sound effects.

As a singleplayer proposition, this is unlikely to keep you interested for very long, but as a console multiplayer experience there is little that can claim to be its equal in entertainment. A copy of *Mario Party* and a couple of friends is guaranteed to radically liven up even the dullest of evenings in.

Edge rating:

Seven out of ten

ALL-STAR DAI RANTOU SMASH BROTHERS

Format: **Nintendo 64**

Publisher: **NCL**

Developer: **HAL Laboratories**

Price: **¥6,800 (£35)**

Release: **Out now (Japan)**













There's a handful of bonus characters to defeat after completing the oneplayer game, although they're rather more obscure than the initial eight celebrities



Twoplayer is fine, but there's simply too much onscreen to keep track of the action in fourplayer mode



At its best, *All-Star Dai Rantou Smash Brothers* is wonderfully silly, such as taking on an entire tribe of Yoshis in hand-to-tongue combat

At a time when the beat 'em up genre is struggling to find both direction and popular favour, it's been left to a pair of famous acronyms to suggest a way forward: NCL and HAL (the former needs no introduction, the latter made the *Kirby* series of games), have teamed up to create *All-Star Dai Rantou Smash Brothers*. Since the N64's inception, owners have been crying out for a fighting game. This is Nintendo's apparent response.

Taking its cue from the SNES classic *Super Mario Kart* (see p116), *Smash Brothers* pitches a handful of reputable Nintendo characters in competition, with the combat now hand-to-hand rather than wheel-to-wheel. Gathered together are Mario, Link, Samus (from the *Metroid* series), Pikachu, Donkey Kong, Kirby, Yoshi and Fox, some represented in polygons for the first time (Rare had to approve Kong's visualisation due to the forthcoming *Donkey Kong 64*.

As happened in *Mario Kart*, HAL has toyed with the stereotyped strengths of each star to create a surprisingly balanced selection of fighters. In some respects, the characters' abilities are fairly predictable, but there's a definite charm in this – Yoshi slurps his opponents up with his tongue, Mario performs his old-school upwards punch, Fox has his blaster and Link hacks away with his saber.

Bouts take place at a number of 'famous' locations, including Kong's jungle, atop Hyrule Castle, and on the back of the *Star Fox* mothership. And in both the single and multiplayer games your goal remains the same: to cast your opponent(s) off the edge of the fight arena. While each character is equipped with a reasonable number of attacks to exploit, the point is really to force others off into oblivion, with seemingly no reward for how well you actually fight. The action in *Smash Brothers* is never anything less than hectic, with a plethora of over-the-top attacks on offer, but there's a marked lack of depth – something *Super Mario Kart* could never be accused of.









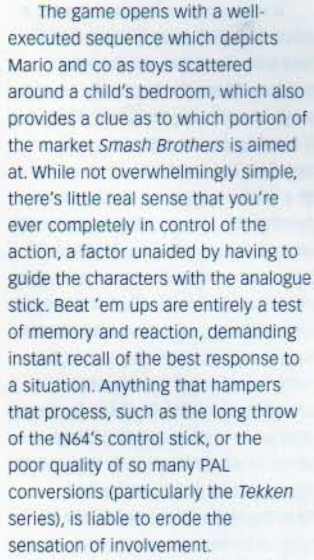




Locations and characters are all torn from classic Nintendo properties, lending credence to an otherwise average game

Pleasingly, the game has a great freedom of movement which enables you to execute both long-range and close-up attacks on unsuspecting opponents

As in *Mario Kart*, HAL has **toyed with the stereotyped strengths** of each star to create a surprisingly **balanced selection** of fighters. There's **a definite charm** in this



The game opens with a well-executed sequence which depicts Mario and co as toys scattered around a child's bedroom, which also provides a clue as to which portion of the market *Smash Brothers* is aimed at. While not overwhelmingly simple, there's little real sense that you're ever completely in control of the action, a factor unaided by having to guide the characters with the analogue stick. Beat 'em ups are entirely a test of memory and reaction, demanding instant recall of the best response to a situation. Anything that hampers that process, such as the long throw of the N64's control stick, or the poor quality of so many PAL conversions (particularly the *Tekken* series), is liable to erode the sensation of involvement.

Between the eight combatants there's a selection of shared moves. The C buttons perform jumps, while the right shoulder button either activates a throw or calls up a bubble-like shield. Although the game is represented with polygons, the action is strictly two-dimensional, with HAL shying away from the complexities of true 3D combat. Unlike in traditional fighting games, there's a great sense of freedom of movement, with both long-range and close attacks. This is easily the game's finest aspect, demanding some adjustment to being hurled around the arenas after the restricted fighting of *Tekken et al*.

A large part of *Smash Brothers*' appeal is the way HAL has played with the protagonists' histories – answering questions that no one ever thought to ask: who's tougher, Donkey Kong, Kirby or Pikachu? It's a wonderfully odd concept, which, sadly, fails to succeed as a game. Like all beat 'em ups, *Smash Brothers* is at its best as a twoplayer game, and while occasionally frustrated by its control system, you rarely fail to enjoy it. But a lack of depth limits HAL's game immensely, leaving you wondering how NCL can so freely squander the world's most valuable videogame properties. *Smash Brothers* is a novel concept executed with considerable flair in places, yet it falls far short of Nintendo's grand standards.

Edge rating:

Five out of ten



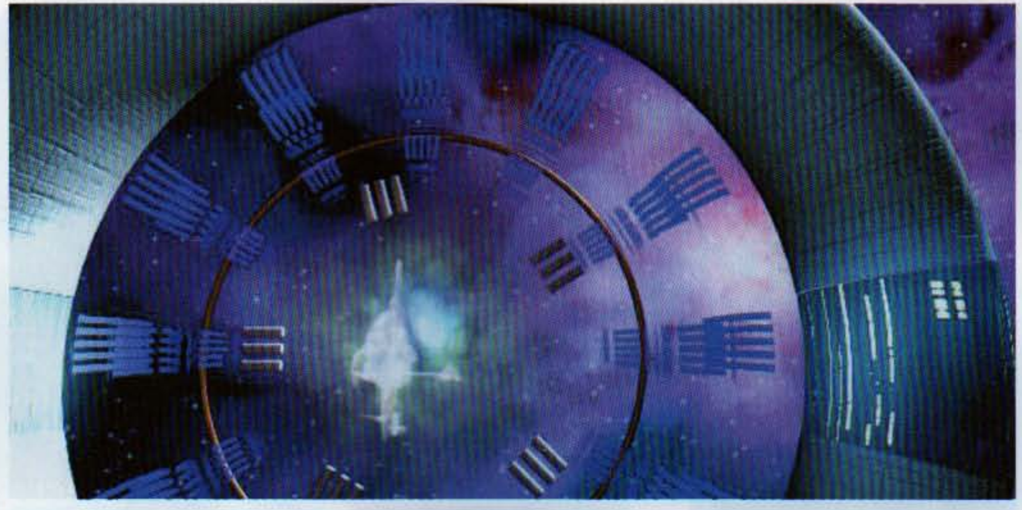


Pasting the opposition requires you to knock them out of the designated fight arena (left), but a finer fighting style is not rewarded

ALPHA CENTAURI









Key events and discoveries are heralded by still images and occasional FMV footage (above). It's also possible to terraform a new landscape (top left)

The graphics in *Alpha Centauri* may be rarely more than rudimentary, but manage to convey the huge amount of necessary information

To those unaccustomed to the magic of Sid Meier's games, *Alpha Centauri* looks like one glorious mess. But then, a lack of airs, graces or modern presentational ideas didn't stop *Civilization* and *Civilization 2* from becoming the best-loved strategy games around. For a formula about as complex as they get, these titles have become frighteningly popular with the PC-owning mainstream. So it goes with *Alpha Centauri*, another sublime work cloaked in the mundane.

Ostensibly, this is *Civilization* in space, and to a certain extent the games bear comparison. Expanding an empire remains the driving factor, and many other elements – such as the isometric viewpoint (as used in *Civ 2*), the defiantly turn-based system, and the heavy reliance on technology trees – have also been recycled. But there's actually rather more here, with a new graphical tile-set and the occasional reference to mind worms and genome projects. It's the net result of all Meier's previous work in the genre; every strong gameplay element and magical empire building ingredient has been employed in a game that possesses an astonishing level of depth, and near-perfect balance. The result induces an experience akin to tunnel vision, where the onscreen events draw you in to such a degree that all thoughts of the outside world are soon extinguished.

The scenario sees a craft launched with the intention of colonising a planet in the Centauri system, conveniently splitting into seven factions due to in-fighting. As the game opens the various sides are beginning to adjust to life on an alien planet surface, encountering the indigenous life for the first time, learning to make use of mineral and energy sources, and starting to expand their empire by building new bases, vehicles, and ploughing time and energy into research. Where they differ is their approach; one side adopting a Gaian philosophy, another pursuing the sciences, and so on.

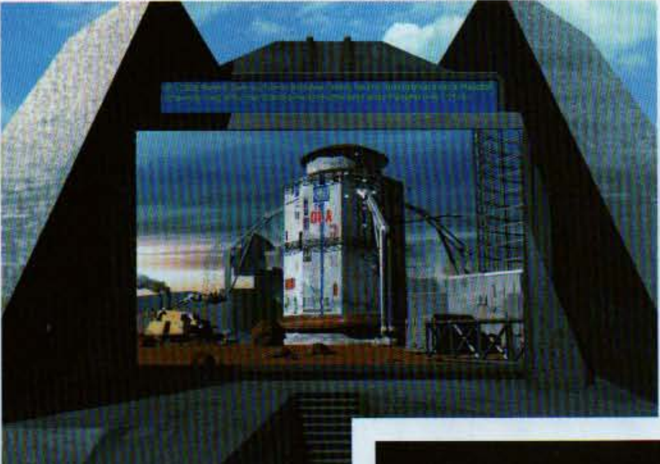
All the action is executed using a point-and-click system that's initially less than attractive, yet graceful in practice. There are frequently several ways of achieving the same result, be it handing out an order to a unit, selecting the construction to-do list of a base, or engaging an enemy in combat. It's also possible to automate various processes, even letting a computer-controlled 'governor' juggle resources and production at any base, while the various menus also let you toggle various warning and interface facilities on or off. The idea is to provide power and flexibility for those who want it, while keeping things streamlined for novices or those with less patience. Aside from a few faltering steps (alleviated a little by tutorial boxes and online help), it's an approach that works remarkably well.

The main obstacle to prosperity comes from the other factions, and it is here that *Alpha Centauri* really excels. The other leaders behave in an all-too-human manner, sticking to their chosen principles, making and

Format:	**PC**
Publisher:	**Electronic Arts**
Developer:	**Fireaxis**
Price:	**£40**
Release:	**Out now**







Communication with other factions is necessary and figures strongly in *Alpha Centauri*. Key decisions might involve a meeting with all seven leaders (left)



It's possible to handle the goings-on at each base individually, or you can opt to assign a computerised 'governor' to oversee general tasks

breaking alliances, switching research programs to suit changing needs, and constantly communicating with the player via pop-up windows. The planet surface of this alien world may be inhospitable, but solitary it's not. A multiplayer mode furthers this idea with the ability to fight or cooperate with other gamers via the Internet, LAN or other usual link-up options. While the pace of the game may result in prohibitive phone bills for home users, the temptation to play in this mode is all too strong.

Graphically, the game is leagues behind current PC blockbusters, although – like *Civ 2* before it – does combine functionality with a pleasing style, and at least the various zoom and grid overlay options ensure you get the optimal view of the action. The countless menus, readouts and options screens are actually the more attractive elements, each working to provide a suitably futuristic look.

Alpha Centauri may leave 3D accelerators gathering dust, but in the world of strategy games it acquits itself rather well. Only the lack of clarity when manoeuvring units in a small area annoys, with the isometric view and an inability to portray more than one vehicle in a single map square necessitating an extra, and rather nebulous, 'stack' window, which feels like a bit of a bodge.

In a genre rife with unfriendly design this one suspect element is quickly forgotten, though. The simple truth is that strategy fans have rarely been presented with such an attractive and intuitive front-end. And as for the game design itself, nothing else comes close. The way the technology tree encompasses so many areas of research is astonishing, making progress and the ability to create new (and customised) vehicle and unit types genuinely exciting. And because even the singleplayer mode is blessed with such a high level of interaction with other leaders – going to war, trading knowledge, making alliances, sharing battle plans – there are always other things to consider beyond simple empire building.

The result induces an experience **akin to tunnel vision**, where the **onscreen events draw you in** to such a degree that all thoughts of the **outside world are soon extinguished**

Alpha Centauri could so easily have been a retread. Instead, it takes a rock-solid foundation and builds a marvellously engineered venture into the world of science fiction, using that new milieu as the inspiration for a barrelful of compelling new ideas. It's this that assures the best of both worlds, giving Meier fans exactly what they want, while providing newcomers with an experience that will obliterate any prejudices about mediocre visuals and turn-based strategy in an instant. Out of this world.

Edge rating:

Nine out of ten



Each bit of completed research advances your knowledge, making it possible to construct new unit types. That knowledge can even be traded among factions

SIM CITY 3000

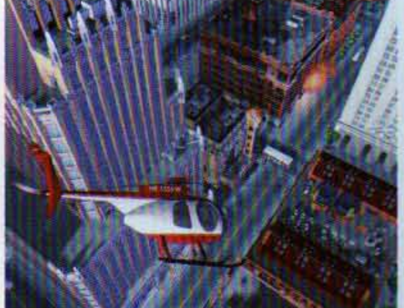
Format: **PC**

Publisher: **Electronic Arts**

Developer: **Maxis**

Price: **£35**

Release: **Out now**







The cities that *Sim City 3000* builds are so diverse and detailed that it's possible to scroll around the screen for several minutes, just watching: the antithesis of late-'90s videogaming





The game offers a number of zoom levels, allowing both delicate local control and a vast general overview of the expanding empire. Both are very useful

Using the cranial grey matter is somewhat out of fashion: firstperson shoot 'em ups require reflex actions and the ability to memorise terrain, while military strategy titles require you to employ specific units quickly. But now that PCs can move vast amounts of detailed visuals about the screen at incredible speeds, actually expecting the player to sit back and ponder has become a somewhat laughable concept.

So where does that leave *Sim City*? After all, it's not even a 'game'. With a limited budget the user builds a city using three different zone types (commercial, industrial, residential) and a variety of public buildings, recreational areas and transport mediums. If it's built well, thousands of people move in and pay taxes, and the city expands. If it isn't, they don't and the city dies. Either way, the player eventually gives up and builds a new city around a different design. But then *Sim City* has always been more of a train set than a videogame.

And things haven't even changed much since the last iteration. Fans will soon recognise all the old transport types, recreations, disasters, power stations and zones, and will be able to employ a few of the same old tactics.

But *Sim City 3000* is still an engrossing way to waste a few days – if you're prepared to drop your preconceptions about what a game is, or should be – and there *are* several worthwhile new additions. It's four times bigger than *SC2K*, allowing much more room for manoeuvre, and the presentation has been improved with a user-friendly menu system, dozens of maps and charts, and a panel of computer-controlled experts who help out with each of the city hall's departments. Elsewhere, players can control the city's waste-disposal system, visible people and cars patrol the streets, and hundreds of new building designs lend a new air of realism to the proceedings.

Most importantly, however, you can now make business deals with nearby cities and incoming companies who might want to plonk a jail or a medical research facility in the middle of your urban mass. Consequently, it's now possible to kickstart the economy just like real local governments do – by sacrificing the safety of the populace for a quick couple of quid.

Ultimately, though, *Sim City 3000* is more of a non-intrusive overhaul than a game in its own right. There should be more new elements to investigate; playing with rubbish will not be enough to attract new gamers. Then again, perhaps Maxis is right not to mess with the formula too much. After all, the policy of subtle changes is certainly working for Ms Croft. Plus, with its modest list of new features, and the promise of plenty of downloadable patches, this game is more entertaining and longer lasting than many a fly-by-night firstperson shooter.

Edge rating:

Seven out of ten

DELTA FORCE

Format: **PC**

Publisher: **NovaLogic**

Developer: **In-house**

Price: **£35**

Release: **Out now**









Five campaigns provide 40-odd missions – some are similar in nature, but the differing environments and parameters assist in promoting the feeling of variety



***Delta Force* features some engrossing atmospheric sound effects. With a Pro-Logic speaker system you can hear enemy bullets whizz by**

Along with *Spec Ops* and *Rainbow Six*, *Delta Force* completes a recent trilogy of military special forces-themed PC titles. The emphasis is firmly on 'action realism', with the developer aware that too much authenticity would have probably done more harm than good. Still, a single, well-placed bullet does finish off enemy soldiers, and in addition to the main firearm, your *DF* operative usually only carries secondary weaponry (typically a double ammo load), a knife, a handgun, and six grenades. This may appear limited, but in practice works very well. Naturally, all are particularly specific, but something like the M4 5.56mm Carbine with attached M203 40mm grenade launcher can prove remarkably versatile in most situations. But there's nothing to stop you arriving at the drop-off point with a personalised weapon selection.

Of course, once there, there's also little preventing you from making your own route to the target rather than following the trajectory proposed at the pre-mission briefing. However, as most of the missions rely on stealth, straying off the optimal low-profile path increases your chances of being detected by a perimeter patrol.

The pace, too, is authentic and therefore unlikely to agree with anyone brought up on a diet of *Quake*. And, as NovaLogic has stuck with voxels instead of opting for a polygonal environment (the former proving advantageous when depicting vast, open settings), anyone wishing to experience the game's 800x600 resolution and 16-million colour modes will require a monster PC, unless they find sluggish, jerky framerates desirable. (There is a 'turbo' option, which smooths out the framerate, but at the expense of environment detail.)

There are more important niggles, however. The AI is mostly adequate, but there are occasions when enemies behave disappointingly, even on the harder difficulty setting. Also, the use of a scope facility offered by several of the weapons can render games a little unbalanced, allowing you to pick off enemy soldiers effortlessly from relative safety, but this can be redressed by tweaking the game's comprehensive set of player aides – increasing the enemy's intelligence is but one example.

Still, while you're unlikely to find the missions too taxing (particularly if you retain the game's default settings) and a little repetitive as a lone soldier, the multiplayer option offers great potential, particularly in cooperative mode, where real-life strategies can be applied with hugely rewarding consequences. This further strengthens *Delta Force*'s position as an accomplished, highly playable stealth-based offering.



The various campaigns keep single players reasonably occupied, but the game's true potential is uncovered only via multiplaying

Edge rating:

Seven out of ten

STREET FIGHTER ZERO 3

Format: **PlayStation**

Publisher: **Capcom**

Developer: **In-house**

Price: **¥5,800 (£30)**

Release: **Out now (Japan); April (UK)**





***Street Fighter Zero 3*'s scenery is typically Capcom: detailed, varied and filled with 'secrets' for you to spot. The quality of animation won't disappoint either**





The range of characters makes for fascinating stand-offs. Fei-Long's speed is difficult for Ryu to counter









'Super' moves are still of vital importance. Ignore them at your peril

This latest version of the *Zero* series might be the most progressive, advanced and, on occasion, innovative *Street Fighter* game for an age, but nevertheless this *Zero 3* is, ultimately, just another reiteration of an ageing blueprint.

Familiarity, it is said, breeds contempt, but for *SFZ3*'s cast list, the opposite is true. Its quota of over 20 characters is impressive, but it's the individual names that engage the greatest interest. The return of many former favourites – from E Honda to Cammy – rather highlights the lacklustre nature of the series' newcomers. Was Birdie ever more than a poorly designed fusion of Zangief and M Bison (known as Balrog in the west)? Long-lost *Street Fighter* fans – like those, perhaps, from its golden era as Super Nintendo darling – will undoubtedly be intrigued by such recognisable figures.

Street Fighter Zero 3, like its many predecessors, demonstrates Capcom's reluctance to subject a proven design brief to the tribulations of a radical overhaul. Complementing the usual measure of polish and visual refinement, however, are a number of thoughtful and appreciable gameplay-specific additions. Foremost among these is the introduction of three different fighting styles – V-ism, X-ism and Z-ism – which highlights Capcom's understanding of its gaming audience. Representing 'balanced', 'aggressive' and 'defensive' respectively, these complement your own individual fighting style.

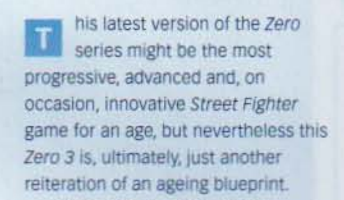
SFZ3 also marks the debut of what, in effect, represents an energy bar for blocking moves. This 'guard gauge' – located beneath the round timer for either fighter – is reduced with successive blows. Once depleted, the character in question is vulnerable to a crashing blow. But, most impressively of all, *Zero 3* introduces a novel take on the generic 'arcade' mode offered by all fighting games. Beginning with a basic collection of indigenous moves, players fight through varied bouts selected via a world map. Your degree of success leads to awards of experience points and new skills. The RPG overtones of this world tour mode serve to add purpose to otherwise largely meaningless solitary battles.

But in spite of its vastly improved loading times, superior animation and pleasing new features, *Street Fighter Zero 3* is still, to an equally laudable and loathable degree, *Street Fighter*. The most venerable of fighting game franchises is, aptly, symptomatic of its genre's creative catharsis. However, it's also maddeningly playable.

Edge rating:

Eight out of ten





The addition of multi-opponent battles adds a strategic vein

SUPERBIKE WORLD CHAMPIONSHIP



The motion capture on the riders is fairly detailed and convincing – until they come off their bikes, that is









Provided your PC boasts sufficient power and speed, great graphics, true-to-life bikes and near TV-quality replay shots are guaranteed

Format: **PC**

Publisher: **Electronic Arts**

Developer: **Milestone**

Price: **£35**

Release: **Out now**

Oddly, despite being thrilling machines to ride, and participating in exciting televised races featuring seemingly endless overtaking, motorbike games have never captured the playing public's imagination in the same way as their car-based equivalents.

Which is why this latest offering from Milestone (usually associated with the car-featuring *Screamer* series) is unlikely to get the masses rushing to their local videogame shop, regardless of the fact that this is clearly the best two-wheel-based sim to have appeared in a long time.

Based on the 1997 Superbike season, aficionados will rejoice to find favourites such as Carl Fogarty and New Zealand's scary Aaron Slight respectively battling for Ducati and Honda supremacy, for example. All of the other manufacturers (Kawasaki, Yamaha and Suzuki) are also present, of course, as are the remaining 30 riders and 12 international circuits. Fact addicts will also welcome the 1988-1997 result statistics available for perusal, while the majority of players will probably visit the photo gallery which, instead of motorcycles, features pictures of grid girls from the different international locations – a reflection of the sport's nature rather than the fact that the game is programmed by Italians, perhaps.

Still, once on the track things get very serious, very quickly. The usual quick/single race and championship modes exist, as well as arcade and simulation options and an impressive number of aspects relating to realism (read: difficulty) can be tweaked. Naturally, the arcade-based side of the proceedings is particularly forgiving, and coming off the bike requires some decidedly reckless riding. Not so in sim mode, of course, where you need only sneeze to find yourself picking up your bike from the side of the track. Real hardcore digital riders will no doubt turn all of the realism on and revel in the incredibly difficult experience, but mere mortals may prefer a more forgiving set-up.

Visually, the level of detail is very impressive, and provided your PC is powerful enough you'll observe individual spokes, suspension travel and drive chain movement, as well as admiring how faithful each motorcycle is reproduced, right down to the specific dial arrangement. The tracks are equally beautifully modelled, with very little evidence of scenery build-up, and the replay mode is superb in conveying authentic TV-style coverage.

Milestone has developed a polished, highly accomplished and accessible (given its arcade option) motorbike racing sim which deserves to form part of any bike fans' PC game collection. But the lack of a dedicated control peripheral (such as a steering wheel for car-based titles) means that, for the average player, the experience is never as engrossing as it might be.

Edge rating:

Seven out of ten







Naturally, there are several in-game views on offer (top) and a fully working flag system similar to other forms of motorsport (centre). The replays are magnificent

Mathengine: Redefining in-game physics

Following **E**67's feature on the coming complexities of realtime physics in games, the recent launch of *Mathengine*, a product dedicated to simplifying the programming of such physics, seems timely.

Based in Oxford, but with offices flung to the corners of the earth – in San Francisco, Tokyo and Madras – Mathengine Plc and its eponymous product is catching the attention of several leading games developers through a no-nonsense approach to spreading its message. Available as a 1.7Mb download from the company's Website (www.mathengine.com), the *Mathengine* software development kit (SDK) costs nothing more than being online to retrieve it. However, if a decision is taken to use the code in a game a negotiated fee is applicable.

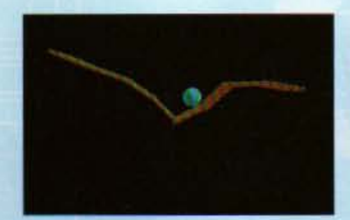
Try before you buy

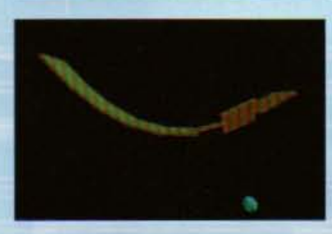
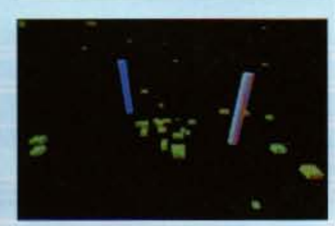
Included with the download are several demonstration pieces, to illustrate a few of *Mathengine*'s capabilities. After running through some of the test pieces with **Edge**, *Mathengine*'s representatives were keen to point out the engine's minimal load on the CPU – around one per cent in most cases. They went on to claim that even in extremely complex applications, the CPU load shouldn't ever exceed ten per cent. However, it's early days for the software, and there's yet to be any real-world implementations of the code, but if nine out of ten developers eventually prefer it, then the company will have fulfilled its mandate.

Minor revolution

In all of the demonstrations included with the download, it's the speed of movement, even when run through *Mathengine*'s admittedly poor graphics renderer, which impresses. **Edge** has been witness to other physics testbeds, but none generated movement at anything approaching a natural pace. If the company's promises of easy incorporation into existing code, low processor overheads and high-level physics are true, then game development could be in for a minor revolution. At least, the as-yet unnamed Japanese company sponsoring the Mathengine Tokyo office must think so… **E**





Clockwise from top right: this snake shape can be picked up at its ends and cast around; magnetic poles scatter pieces; 'paper' floating in the wind; and a 'real' rope bridge in action

WorkStation

This month's patently unhinged work environment belongs to **Alan Jack**, support engineer at DMA Design, currently testing *Wild Metal Country*. Proof positive, if ever it was needed, that sitting in an office with creative manager Gary Penn on one side (see p100) and PR boss Brian Baglow on the other isn't good for your mental health

Buddha "Gary Penn is our own little games Buddha. But Buddha doesn't have sideburns. And isn't quite as fat"

Passport photo of female clad in black "My bird. She's a Goth"

Durex box "Brian's mum got it, as she's matron at a nursing home, but all the residents are over 70 so she gave it to us. Luckily, it was just the right size to fit all my nifty drum'n'bass CDs"

'Nifty' drum'n'bass CD "Talvin Singh Presents Sounds of the Asian Underground'. A bit of trancey, hip-hoppy kind of loveliness with an Asian overtone. Mmmm"



Members of the development community (sane or otherwise) are invited to email WorkStation submissions to **edge@futurenet.co.uk**

Photograph of a hairy backside with a sinister-looking boil on it "This is a picture of Gary's polynodal sinus which has to be drained and perked all the time. It generally makes him the man that he wants to be"

Caveman doll "We're doing a game called Attack which may still feature cavemen if we ever decide what we're going to do with it. The condom is a memento of the ones given out at DMA's Christmas party last year"



The trials of a start-up developer: part seven

After co-founding Lionhead Studios with Peter Molyneux, Demis Hassabis set up his own development house, Elixir Studios. With ECTS looming, the time had come for Elixir to secure itself a publisher

Closing the deal

'Elixir was now two months old and despite all of the talk, we still hadn't signed a publishing deal. The European Computer Trade Show, ECTS, takes place in London at the beginning of September. My main focus there was getting the deal signed as soon as possible.

We were in the process of talking to four publishers. The choice of publisher is probably about as important as it gets for a developer. And that's where it gets tricky. You might think that it comes down to who offers you the most money, but it's not as simple as that. Ultimately, we turned down a bigger offer than the one we took.

In my mind at least, there are five key issues to consider. Money is obviously very important and comes in two forms – up-front payments and royalties. Some developers prefer to get hefty up-front payments and settle for royalty rates as low as one or two per cent. If you're confident, though, it's probably better to settle for lower up-front in exchange for better royalty rates.

"It's fashionable among developers to denigrate the importance of marketing. But a marketing team with enthusiasm and ideas can make a real difference"

The second consideration is the power of the publisher at retail. This is hugely important. You need a publisher with distribution muscle. Do they have the power to get your game on shelves around the world? Are they as strong in the American and Japanese markets as they are in Europe? How convincing is their sales operation?

The third concern is marketing. It's fashionable among developers to denigrate the importance of marketing. I don't subscribe to this point of view at all. A marketing team with enthusiasm and ideas can make a real difference. Are they prepared to spend money pushing your game? Do the people themselves play and understand games?

The fourth consideration is the issue of the people themselves. Are you confident that you can build a successful working relationship with a particular team of people? Unfortunately, this part is the least scientific. Much of it comes down to gut instinct.

The final issue is that of your status with a prospective publisher. There's always a danger that in signing with one of the bigger outfits, your game will be swamped by the sheer weight of their schedule. You want their people to sit up and take notice of your game. You've got to be sure that your publisher's going to see you as instrumental to their long-term success. This guarantees that they will fulfil their side of the deal.

After much agonising, I decided we would go with Eidos. They had everything we needed. They were offering an excellent deal with the right figures. They've recently established a Japanese subsidiary and they've ramped up their US operations, both of which should increase their power in the respective markets. I think their marketing has been superb over the last few years and they're setting a new standard in this area. At least some of Lara's success must be attributed to the really excellent press coverage generated by the Eidos PR department. Their management team is exemplary and I know that we can work together.

I have known Ian Livingstone [chairman, see **E**65] and Charles Cornwall [CEO] for a long time, and I think their blend of games knowledge and business acumen is a very powerful and unique combination. It's one of the main reasons why we went with them. Plus, the fact that they are UK-based means that I can take a half-hour trip to their offices and sort out any problems face to face. That Ian comes from a design background himself is a huge bonus, as it means that he really understands original game concepts. Ultimately I felt that Eidos' ambitions and standards matched our own. And as a result, the first stage of the deal, the Heads of Agreement, was signed on the Sunday of ECTS. I found it very hard breaking this news to the other publishers, as all three had made us superb offers.

Meanwhile, work was going really well, helped by the addition of two more artists. Colin Seaman came to us from Psygnosis, where he was an art manager (previous achievements include an appearance on Tony Hart's 'Hart Beat' show...). Then Rainer Gombos came to us from Germany, where he worked on a game called *May Day*. He was an immediate hit when he turned up to his interview in leather trousers. A ruthlessly efficient *Starcraft* player, 'Gombos the Protoss' regularly exhorts his colleagues in late night games with cries of 'Attack! You must attack!'

So the team was beginning to gel. Before I started Elixir I had come to the conclusion that simple talent isn't enough. I am keen to work with people with the right attitude. Passion, hunger and humility are essential traits. They've also got to have a sense of humour. When you're spending 16 hours a day together, you've got to get on. I hope that most of this happens naturally, but I try to give the process a helping hand, so the company pays for everyone to go out once a month, with a different person responsible for each outing. We also continue to play games obsessively. Usually this helps team spirit, but there are exceptions. Diplomacy, as mentioned previously, was a divisive experience, while five-a-side football was also abandoned after a particularly violent game. The spectacle of ten lardy programmers lumbering around a football pitch was a sight in itself. However, it was a fantastic opportunity to laugh heartily at each other, which can only be a good thing.'

Don't forget to include 'GSOH' on your CV. Work 16 hours a day in the same office as this lot and you'll need one



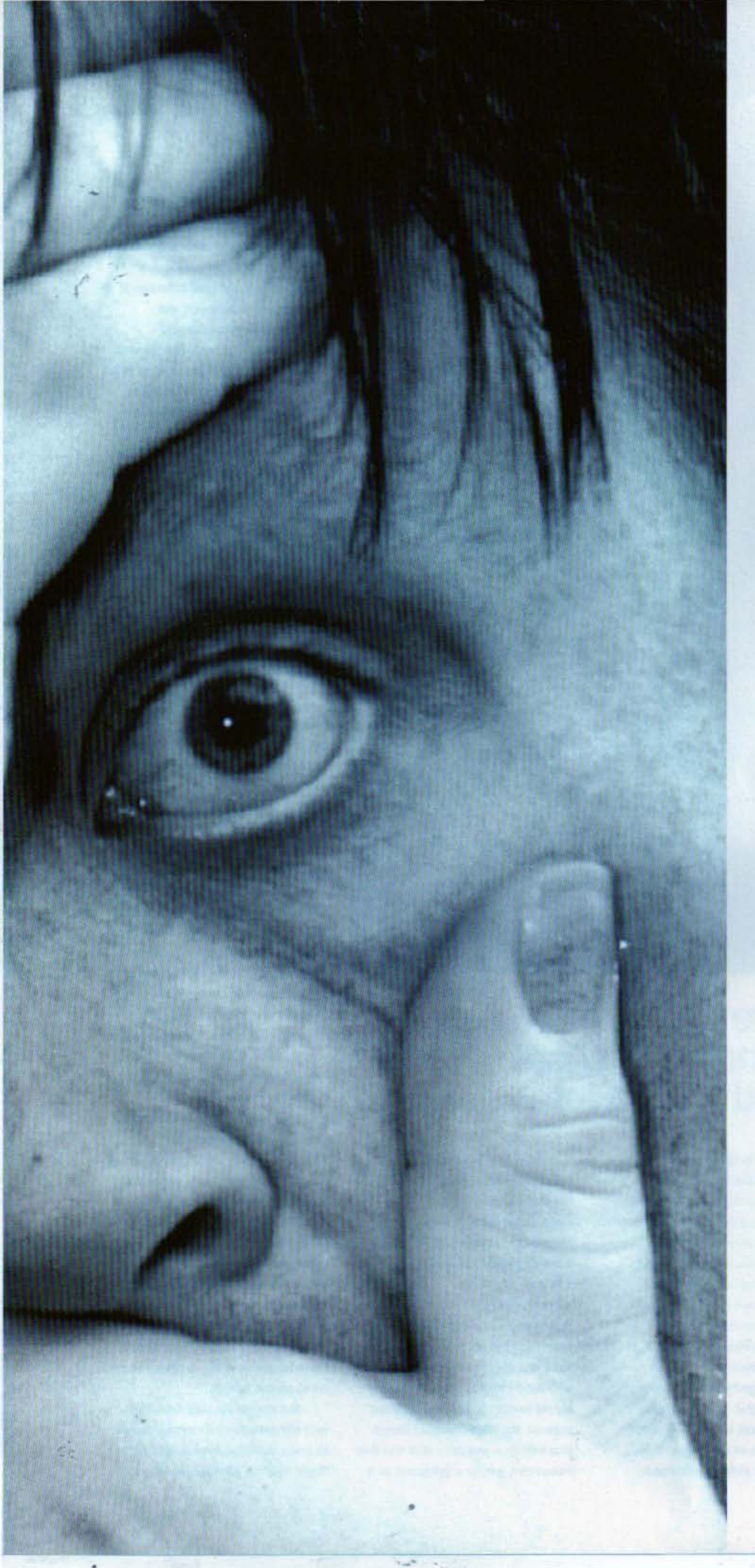
Edge moves

Programmers, artists, engineers, producers, animators, project managers – they're all essential to the industry, and they all read **Edge**. The following pages carry a phenomenal variety of jobs for graduates, professionals and any other interested parties who think they could make it in the videogame scene. Apply within...

an audience with...

Gary Penn

His early relationship with videogames began as a journalist, where the pen indeed proved mightier than the sword, but at DMA the child within is ensconced in a far more creative role



Best known as a journalist from the heyday of pioneering magazines *Zzap 64!*, *The One* and *Amiga Power*, Gary Penn is now creative manager at Dundee's groundbreaking DMA Design. Penn's position seems unique among UK developers, offering as he does considered input to DMA's already prodigious output while at the same time trying to conceive of nothing less ambitious than a general theory of gameplay. He hopes he's not alone. He hopes there are other people in the development community striving to answer the same basic questions. He hopes they'll get in touch. But first, they'd better read this...

Edge: As a journalist you always seemed cynical about the business. Has being on the other side changed your opinions?

Gary Penn: No. It's made me appreciate why things are the way they are more than I did. I mean, I've had experience from all different angles now; from the punter through to the journalist; the publishing side – marketing, PR, manuals – pretty much every single aspect; but this is the first time hands-on in the development side of it. I've kind of seen it all, which is probably why I'm so cynical.

Edge: How do games seem to you now, as in the past you were seeing 30 or 40 new games a month and now you're involved with one for two years or more.

GP: I hardly play anything. I try and keep tabs on what's going on but I find I don't have time.

Edge: If it's hard to keep your enthusiasm for...

GP: [Interrupting] No, no, no! Enthusiasm is different. The problem with the cynicism thing is that it's generally got misconstrued. The medium itself is fantastic, I'm so cynical about it because it's so underexploited.

Edge: You have faith in the medium, then, but not in the bulk of what's produced?

GP: The medium itself, I think... well, I wouldn't want to be in any other business. It's as simple as that. That's partly because I have such a good understanding of this business, but also because it shares common elements with other media, in that you're working with people and you're making things. I can't think of anything better than that. It's the same with magazines. Except that with magazines, you get to do it 12 times a year. With software development, the evolutionary curve has to flatten out because repetition isn't so frequent. With magazines, that's a far more established medium and business model. You have a structure, a framework, a language, a grammar, whatever you want to call it. So everyone knows exactly what they're doing and where they're going, and you can move within that framework.

Edge: And you think this medium, videogames, is too young to have that kind of model?

GP: Yes. The appreciation of the medium isn't there. I'd say, if anyone appreciates it, it's the Japanese. They did the same with comics. The contrast between Japanese comic book evolution and western comic book evolution is quite marked. More recently, the western side of things has paid more attention to what the Japanese are up to, but they were very experimental. It's the same with videogames. The Japanese are a lot more efficient at what they do. They're always trying to experiment.



"I can't think of anything more childlike than running around pretending to shoot people. That's what I used to do a lot when I was a kid"

Edge: Some would say that DMA is the closest to a Japanese-style developer in the UK...

GP: Possibly. The reason I'd argue for that – and it's partly the rationale behind the whole digital toys-and-games way of thinking – is that the Japanese understand that's what it's all about. They appreciate the whole toy aspect far more than the Europeans do. America and Europe, the west as a whole, tends to be very wary of simplifying it as the 'next generation of toys' because that sounds childish. And that's the biggest stumbling block so far.

Edge: You don't like the term 'interactive entertainment' do you, which Edge has on its cover?

GP: That's bollocks for a start! [Laughs]. Okay, the most base form of interactive entertainment is sex. Now, you're telling me videogames are the same as sex? I don't think so. Any game you play that involves playing with toys is interactive and entertaining. So why call this medium interactive entertainment?

Edge: Does it imply some sort of inferiority complex? That to be seen as childish is a bad thing?

GP: Well, I can't think of anything more childlike than running around pretending to shoot people. That's what I used to do a lot when I was a kid. I was always playing with toy cars, with action figures, anything I could lay my hands on. And that includes pretend, the whole roleplay aspect that kids do – you get a stick and that becomes a gun, or a lightsaber, or a lance. Basically, the imagination starts opening up all sorts of fantasy worlds. What's happening now with videogames is that level of fantasy is being far more organised and structured. The whole *Doom/Quake* series is far more like the war with sticks for guns that I used to play, but it's in a more convenient form.

Edge: If videogames are toys – playing games and childsplay – does that mean that the audience for videogames is limited to those people who appreciate toys and games – ie, a young audience?

GP: Not at all. The strict definition of a toy is a play thing for amusement, primarily for children. I think that's our problem. But you get sex toys. Are you telling me sex toys are for children, or is the term 'toy' misused in that context? I don't know, the whole terminology thing does bother me a lot, I'm very pedantic about terminology.

Edge: So, how do you incorporate these basic toy concepts into your role here?

GP: The role here has kind of changed and modified along the way. I was senior producer at BMG and one of the teams I looked after was DMA as a whole. Dave [Jones, head of DMA] was interested in what I was thinking, because at this time I was formulating this digital toy idea. I'm not seeing it elsewhere; I'm not seeing people formulate a structure for this medium. They're producing design documents which are hundreds of pages thick and mean shit.

Edge: Design documents are not really about the essence of gameplay, though. They're usually about the surface details.

GP: Yeah. I mean, don't get me wrong, the surface is really quite important. Look at the way that a polygonal model can be represented in so many different forms – a basic wireframe shape, then the different forms it takes when you start adding textures and lighting. The same thing applies with the game side of it. If you want to break it down into a clinical formula: games = toys + rules. For me, it's as simple as that.

But there is no Holy Grail, this isn't alchemy, this isn't some attempt to find a definitive formula that says, 'Right, that's it. All videogames are

"The strict definition of a toy is a **play thing** for **amusement**, primarily for children. Are you telling me **sex toys** are for children?"

produced in this manner.' From my point of view, there must be some sort of commonality in this, there has to be. There's commonality in every other medium. And from that commonality, that's where you get the differences, because people start to experiment. They start to take what is accepted and suddenly turn it on its head, or take bits away, or add bits to it.

Edge: So it's like Aristotle said: there are only seven types of story but there can be so many tiny variations on each one that we keep listening to them.

GP: One thing that's let me down is, to be honest, education. I don't have a particularly solid education, so this year I've promised myself I'm going to start reading some relevant material.

Edge: Have you tried reading Joseph Campbell?

GP: Yeah, I got 'The Hero with the Thousand Faces' and I started reading it but I couldn't get through it. And that's one of the dangers with the medium [of videogames]. It gives you a really shit attention span.

Edge: So why are no other companies really looking at things this deeply?

GP: I'm sure there are people out there who think about it, but who do they talk to? Where's this common bond? All the development conferences I've attended tend to approach things from the clinical, development side – not the game side which it needs to be. To publishers it's a piece of software first and foremost, and then it's a game.

There are quite a few definitions that I want to get across to you. First, there's this formulaic approach, that games = toys + rules, then you've got this whole aspect of touch which is so underexploited, and that's another thing that irritates me.

Edge: In a sense, videogames have always been about touch. What makes or breaks them is the quality of the control experience.

GP: But that's what's also important about this medium. It's the first one to exploit touch. Sculpture, and to a certain degree art, alludes to touch. So, if someone's doing an oil painting, part of the process of using oils is to create a sense of texture.

This medium takes the illusion of touch a lot further. The main strength of this medium is the sense of physicality. It's the sense of being able to touch something that can't possibly exist and being able to manipulate it. If you take a typical fighting game, you've got two action figures. These action figures are specifically built for the purpose of combat. Now, if these two action figures could physically exist and you could control them with little remote controls, rather than me as a kid with one in one hand and one in the other, banging them against each other going 'Arrrgh!', it would be brilliant. What's interesting is that this medium is exactly the same as doing that, except it's more elaborate.

Edge: And you take this concept of touch to mean the sense of being in control rather than anything like force-feedback joysticks?

GP: Force-feedback can help, but I think it's a danger to start introducing too many elements too soon. I don't believe that people have mastered the key elements of the art side and the audio side – the visual and audio feedback – and the physical side, that is, the physical sensation of 'holding' this thing, whether it's a flat 2D sprite or a full-blown 3D polygon model.

It's all a question of separating the technology from the creativity. The technology's just the fucking medium. This medium is not going to become massmarket until the technology side becomes no big deal. As far as I can see from the Japanese perspective, the technology side is less of a big deal. Programmers have always been in control. Looking forwards, I'm saying, programmers should not be in control.

Edge: You think they're just technicians?

GP: Yes. It doesn't mean they're



dispensable. It doesn't mean they're worthless. It means, if anything, they're more valuable. But the disciplines have got to be more focused. The point of treating things as digital toys is that it gives everyone a focus. It's not a sprite, it's not a polygon, it's a fucking toy.

Edge: Do you think that the way the business is run stops people finding out all these things, stops people experimenting?

GP: Experimentation is difficult. From the toy point of view, the rules help to make the game by exploiting the tools. And, again, this is why I like the way the Japanese work, as they tend to build the player toy first – be it Mario or any other toy – and then they basically produce an appropriate, complimentary framework for him to play in – the player gets to exploit the properties of the toy in question. There are so many areas of the business, let alone the development side, that aren't being addressed. People are getting on with it, people are making money, why should they bother trying to make the process any different? Because that implies risk and danger...

Edge: Looking at videogames as a form, as you are, you have to look at parallel media like film and television and see that their development has been so slow and stifled because they've been run as commercial mediums. Isn't that fate awaiting videogames?



"Why should a developer be given the God-given right to develop what he likes? I think it's unrealistic to expect people to fund them to piss around"

GP: I used to agree with developers when they moaned about not being able to do what they were good at. But this is so long as the developers in question don't piss the money up the wall in the first place. There has to be some framework, some structure, otherwise creative freedom just goes all over the shop. It has to be far more focused than it is at the moment and, to be brutally honest, developers are probably more unprofessional than magazine journalists.

It's scary to have come from what I regarded as not an especially professional environment on the magazine side, and then to come over and realise that, Jesus Christ, the development process is a mess. It's so unprofessional. Unprofessional isn't bad. It doesn't mean that the people involved are crap. Unprofessional means that there is no real structure. Why should a developer be given the God-given right to develop what he likes? Who's paying for this stuff? I think it's unrealistic to expect people to fund them to piss around.

Edge: So what's your structure at DMA? Do you drop many ideas by the wayside? Do you take them on for a while then say, 'No, we're not taking that any further'?

GP: Yeah. There's a lot of stuff that doesn't get through. There are certain generic things that can be implemented across the board, but in terms of improving things you don't find out whether most of the stuff works until right near the end. It's only when the toy set is built and being used in the way that was intended that you start realising, 'This isn't as much fun as we thought.' That's the reason why a lot of the DMA games have taken so long to develop, because we've been allowed to rewrite them, effectively.

Edge: And how about publisher pressure? How does it work with Gremlin, for example, because all its history and games seems almost like the opposite of what DMA does?

GP: That's true enough, and I think opposites attracting was probably the initial interest. As I said before, it's unrealistic for developers to expect to do what they like unless they fund it themselves. Those days are long gone. You have to start focusing a lot more, you can't just say, 'Right, let's sit down and we'll design anything we like.'

Edge: So you're not just some old journo carping on about the old days?

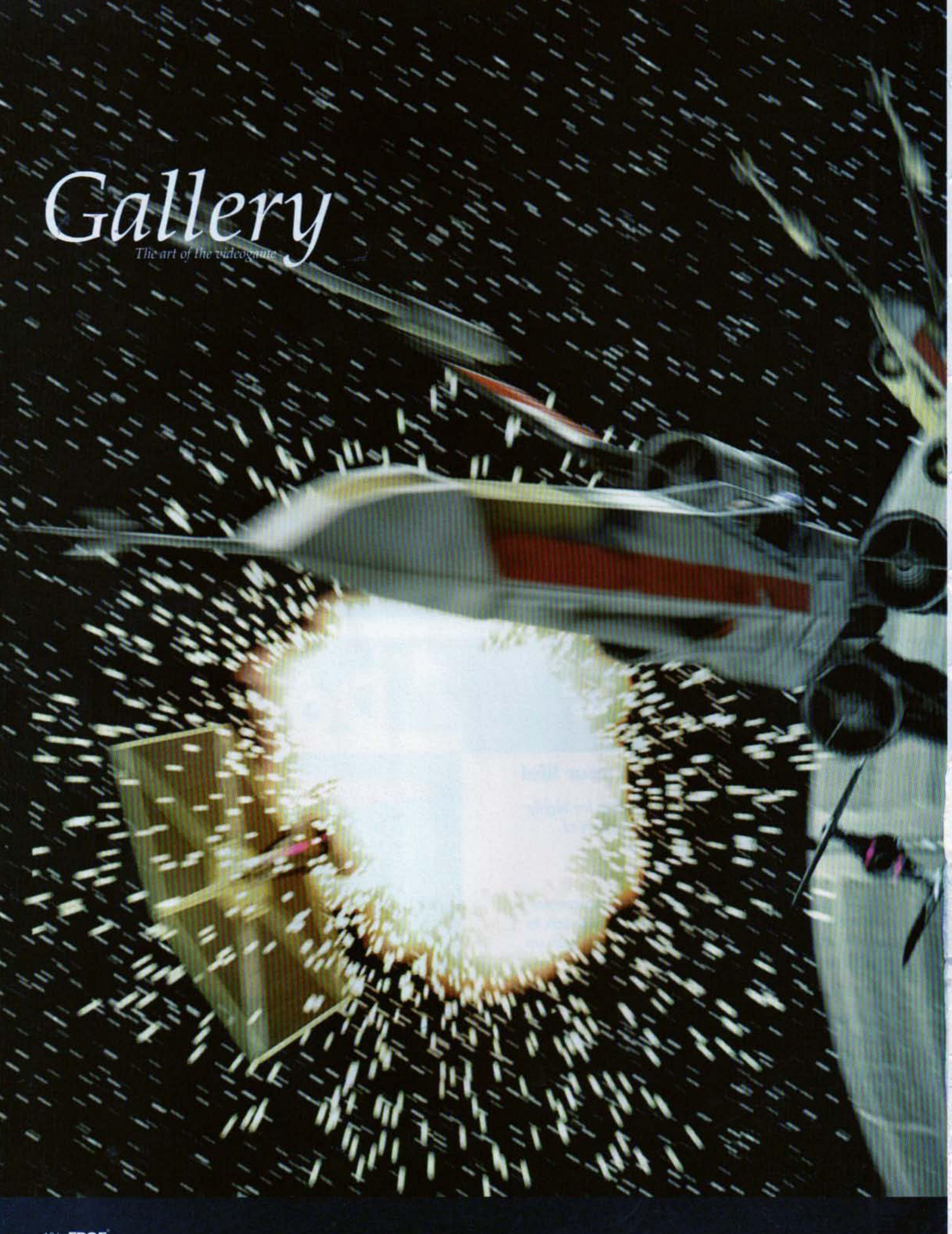
GP: Not at all, because I see a strong connection between then and now. I don't see much of a difference, apart from the fact that the medium's improved in quality. In terms of exploitation, there has been progress. But the biggest beef I have, the reason I'm trying to formulate this, is because I'm not getting new toys to play with. I'm just getting the same old toys I've always had.

Edge: But although it's slow progress, are you optimistic?

GP: I don't know. I tend to fluctuate between extreme optimism and extreme depression.

Edge: And the punters. Do they know what they're after now?

GP: They probably know what they're after as much as I do. And I haven't got a fucking clue. E


Gallery
The art of the videogame







Developed for the arcade, Sega's *Star Wars Trilogy* hit the High Street in December. And, as this artwork attests, the lure of the legendary saga remains as strong as ever. The game's Model 3 Step 2 visuals should sate hungry *Star Wars* fans until the arrival of Episode One here on May 21.

Images rendered by Sega's AM Annex team in Tokyo



Since they first worked on the flat-shaded polygon extravaganza *Virtua Racing*, Sega's creatives have gained a serious amount of experience in modelling CGI automobiles, as this promo artwork for *Sega Rally 2* (see p66), featuring the Peugeot 306 Maxi from the game, clearly attests.

Images rendered by Sega's AM3 team in Tokyo



Psygnosis has gone back to its roots for inspiration, in order to redress the balance after the slated *F1 98*. *Rollcage*, then, is a shameless return to the future world of *Wipeout*, matching spectacular explosions and colourful power-ups alongside spectacular scenery. The darkly atmospheric backdrop makes the game's pyrotechnics even more vivid. There are three types of environment in the game: a rocky martian surface, a neon-lit night city, and a long, poorly illuminated tunnel system.

Rendering by **Bela Lund** at Attention to Detail using *3D Studio Max*

ATEI '99: SPECIAL REPORT

AN EARLY UNVEILING AT EARLS COURT FOR SOME OF 1999'S HOTTEST NEW COIN-OPS











Midway's *Hydro Thunder* garnered constant attention at ATEI (above). The use of a subwoofer to handle the boats' low revving engine is fantastic

Naomi-based *Crazy Taxi* (main) was already highly enjoyable, despite being unfinished. Other titles in the Naomi line-up included *Zombie Zone, THOTD 2*, and *Dynamite Baseball 98*. Atari's *War: Final Assault* was a real surprise (above)

A total of 416 exhibitors, occupying a record floor space of 19,739 sq m constituted 1999's Amusement Trades Exhibition International at London's Earls Court Exhibition Centre last month. As ever, the show attracted the main players (with the exception of Capcom), eager to convince ATEI attendees how much income their machines would generate once placed on the arcade floor. Indeed, unlike the majority of the year's shows, ATEI is very much about money, and very little about games.

Still, Sega made its usual impressive appearance, with Model 3-powered European novelties such as *LA Machineguns, Daytona USA 2 Power Edition, Ocean Hunter, Star Wars Trilogy Arcade*, and last month's *Magical Truck Adventure*, but of more interest was the company's Naomi-fuelled range. Heading up the assault was *The House of the Dead 2* in its various cabinet guises, but in particular, an unfinished but already very playable *Crazy Taxi* (see p113). Next to it, *Zombie Zone* (*Blood Bullet* in the east) proved extremely enjoyable, if a little repetitive after prolonged play, and a graphically impressive *Dynamite Baseball 98* completed the new line-up.

VideoLogic, provider of the Power VR chip behind Naomi (as well as Dreamcast) secured



Naomi-powered *The House of the Dead 2* featured heavily, and was very popular – but Edge did notice a couple of slowdown occurrences after prolonged playing







Konami's super *Thrill Drive* (top, left) was dangerously addictive. Not so with *Ultimate Race Pro* (top, right) and Namco's *500 GP* (above)



Sega's Naomi cabinet can have new games installed with relative ease – and at little cost

a modest stand, proudly showing off *Ultimate Race Pro* and *The House of the Dead 2*.

Konami had a substantial presence, too, and introduced *Dancing Stage* to the west which, according to the company's representatives, had been very well received by the UK public in recent test runs around the country, despite **Edge**'s concerns that western arcade frequenters might feel too self-conscious. *Beat-Mania* returned in a *3rd Mix* form and *Guitar Freaks* (see p120) completed Konami's musical adventures. Elsewhere on the stand *Hyper Bishi Bashi* felt intriguingly playable, while *Thrill Drive* (see p112) proved dangerously addictive.

Namco's stand completed the big player trio, but despite the high number of titles on offer, **Edge** found few particularly exciting. *Final Furlong 2* and *Point Blank 2* were seemingly identical to their predecessors, whereas *Time Crisis 2 Solo* saw the CPU take control of your gun-toting partner for a singleplayer experience. The only new Namco titles were *Angler King*, inspired by (though not quite as good as), Sega's *Get Bass*, and the lacklustre *500GP* bike game. Far more interesting was an arcade version of *Bust A Groove*, and *Rolling Extreme* from Gaelco, whose *Radikal Bikers* proved one of last year's hits. This year's revelation was Atari's fine *War: Final Assault* (see p112) which almost made up for the huge disappointment of *Gauntlet Legends*. Further on, Midway's *Hydro Thunder* (see p113) impressed, too.

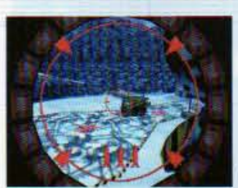
Other regrets were few, but *Spikeout*'s absence was notable, as was Capcom's. On a more worrying level, however, print machines (similar to SNK's *NeoPrint Club*) that have quickly conquered Japanese arcades, were out in more force than last year and look set to do the same over here.

WAR: FINAL ASSAULT

ATARI GAMES SURPRISES SHOW WITH LAUNCH OF FOURPLAYER-LINKABLE ARCADE SHOOT 'EM UP

Developer: **Atari Games**
Release: **TBA**
Origin: **US**





Although the game can be played in thirdperson mode, the experience is far more accomplished if you view proceedings via your character's eyes

War: Final Assault is a genuine surprise. Immensely playable, Atari Games' fourplayer-linkable Voodoo II-powered first- or thirdperson action is little more than a *Quake*-inspired arcade offering, yet such is the conservative state of the coin-op market that no other developer had previously displayed the forethought of showcasing such a product. The irony, of course, is that *War* is perfectly suited to the format of arcade playing. After they have selected a character, up to four players can choose to either battle it out in deathmatch mode or take on the CPU in the game's mission-based, cooperative game.

While the latter was unavailable at the show (Atari hasn't finished tweaking its title), the deathmatch option was highly promising. The action is relentless as you rush around looking for weapon upgrades and health power-ups using a control system inspired from the mouse/keys combination utilised by firstperson shooter-playing PC owners. The direction keys are present, but a joystick fills the role of the mouse. It's a system that works surprisingly well, although according to its makers, the lack of a steering wheel or a lightgun confused some show attendees who chose to bypass one of ATEI's best offerings.

Even in its current unfinished state, *War: Final Assault* shows impressive potential. Expect plenty of firstperson shooters to gradually follow its lead.





Like all good firstperson deathmatchers, many are the ways to eliminate foes

THRILL DRIVE

KONAMI'S LATEST DRIVING GAME COIN-OP PROVES TO BE A CROWD PLEASER

Developer: **Konami**
Release: **Out now (Japan)**
Origin: **Japan**

Thrill Drive was undoubtedly one of the show's highlights, proving one of the most addictive games on show. Technically speaking, it's unlikely to win any awards – scenery pop-up is frighteningly obvious and the dynamics are occasionally dubious – but get behind the wheel and all is forgiven.

Essentially an evolution of *GTi Club*, the graphics convey a realistic environment within which, after choosing your vehicle from the seven real production models on offer, you and up to three other players race to the end of the stage. Because this occurs on city streets, highways, and country roads, civilian traffic is frequent and while the – nigh on inevitable – resulting crashes are the most realistically depicted in an arcade game (complete with instant reverse angle replay for added drama), it's preferable to resist veering into the path of an oncoming bus if you plan to reach the next time extension before the seconds run out.

At the end of the game your driving is assessed according to your technical ability (including speed) as well as intelligence, courage, and courtesy displayed. If you're lucky to find the game in a deluxe cabinet at your local arcade, you'll benefit from the option to race using a full manual gearbox (including clutch, of course) as well as the usual massive projection screen. Expect to queue before getting a chance to play it.



Despite not boasting the most realistic dynamics ever seen in a coin-op, this racing game is immense fun







Here you're looking down on fellow competitors from the safety of the bus (top). Crashes are replayed instantly (above)

CRAZY TAXI

A FIRST LOOK AT NAOMI'S MOST PROMISING SUITOR

Developer: **Sega**
Release: **TBA**
Origin: **Japan**

Unfinished, and shown only as part of the forthcoming Naomi line-up, *Crazy Taxi* is looking very promising. An evolution of last year's Model 3-powered *Harley Davidson & LA Riders*, this latest offering sees you taking on the role of a taxi driver who must look for fares from the many pedestrians found strolling its polygonal streets. Thankfully, there are plenty of them around, and once you've picked up a passenger it's your task to get them to their destination as quickly as possible. It pays – literally – to drive reasonably safely, however, as the more accidents you get involved in the lower the tip.





Laugh as you collect fares, and then ensure they get a ride they will never forget

Although still unfinished, and therefore glitchy, *Crazy Taxi*'s visuals are the best demonstration of Naomi's impressive polygon powers thus far

The handling is typically arcade-esque in nature, enabling plenty of outrageous powerslides, jumps and other amusing unrealistic nonsense as you attempt to negotiate the heavy downtown traffic while looking for possible shortcuts, which could involve anything from one-way streets to a bumpy ride across one of the city's parks – although don't expect your fares to share your enthusiasm for experiencing countless heart rate-augmenting automotive near-misses.

It's a fun, time-based, colourful affair that works well and proved particularly popular with the punters at the show, regardless of its sole stand-up cabinet and 'blink-and-you'll-miss-it' positioning on Sega's stand. Given its Naomi-based nature, a Dreamcast conversion is not unlikely.

HYDRO THUNDER

IT'S RAPID RACER ON STEROIDS AS MIDWAY TAKES TO THE WATER

Developer: **Midway**
Release: **Out now**
Origin: **US**

Powerboat racing titles have traditionally enjoyed more success on home formats, but this latest Midway-developed coin-op may help redress the balance. On offer are 11 aquatic tracks (complete with hidden routes) and 13 different powerboats. Scattered along the courses are numerous power-ups (including handy turbo icons) which aid your progress.

The graphics are not groundbreaking, but they do the job and, importantly, they include convincing water and spray effects to add to the sense of immersion (although not literally). This is further enhanced with the placement of a subwoofer unit underneath your seat, which reproduces the rumble of the engine convincingly, and proves wonderfully apt at conveying the extra RPM caused by the liberal use of the turbo function.



Midway's title may not look as immediately impressive as a Model 3-based offering, but its playability deserves the attention of arcade fans



Being an arcade game, you can expect some of the water-based locations to prove a little far-fetched



Hydro Thunder is simple, noisy coin-op fun and multiplayer races (up to four cabinets can link) are remarkably competitive. The addition of a turbo button which you can keep pressed down at your discretion (provided you have enough turbo 'fuel', of course), is a tremendous addition, which gives you the run-up needed to launch off the ramps to collect the power-ups floating high above water level.

Quite how its traditional arcade nature will translate to the small screen will only become clear once the Dreamcast version appears early next year.

ROLLING EXTREME

GAELCO HITS A DOWNHILL SLOPE

Developer: **Gaelco**
Release: **TBA**
Origin: **Spain**

After the innovative, non-aggressive fun of last year's *Radikal Bikers*, in which you had to race around a city delivering pizzas on a moped, **Edge** made a bee-line for Gaelco's stand at ATEI '99. Sadly, the Spanish company's new offering didn't quite live up to expectations, featuring the curious pastime of rolling down a hill lying on a skateboard. The simplicity of the interface (left, right, punch and brake) hampers the feeling of control, although the force-feedback through the yoke is strong.





This extreme sport isn't exactly mainstream yet... Just avoid the lampposts

ZOMBIE ZONE

SEGA'S BEAT 'EM UP BLOODBATH PROVES A KILLER

Developer: **AM1**
Release: **Out now (Japan)**
Origin: **Japan**





The battle takes place across a huge variety of locations, including atop a moving freight train. Machine gunning zombies scores a bonus, too...

Not entirely dissimilar to Sega's other new scrolling beat 'em up *Spikeout*, *Zombie Zone* actually proves the more playable of the two. Although lacking its sister title's innovative multiplayer link, *Zone* is packed with major events and little touches. Doubts about the real power of Naomi are reinforced by occasional pixelisation of texture maps.

LA MACHINEGUNS

SEGA PLAYS WITH HEAVY WEAPONRY

Developer: **AM3**
Release: **Out now (Japan)**
Origin: **Japan**

Brash and loud (and set in the US), AM3's latest is an all-out blast played on the Model 3 board. As ever, visuals are suitably impressive, soaked in dense colours and highly detailed. Two huge (and remarkably heavy) plastic machineguns dominate the cabinet, complete with recoil feedback. Gameplay is of the 'shoot first, ask questions later' variety, but in this context that's just about enough. Beat 'em up-style air juggles can be performed with successive hits, calling for careful aim.





Unusually for a modern shoot 'em up, you need not reload in *LA Machineguns*

GAUNTLET LEGENDS

A CLASSIC REWORKED IN THREE COLOURFUL DIMENSIONS

Developer: **Atari**
Release: **Out now**
Origin: **US**





Sadly, *Gauntlet*'s move into three dimensionality hasn't really worked as well as Edge (and possibly Atari, too) hoped. *Legends* is fairly weak

Undeniably one of ATEI's disappointments (possibly the biggest, in fact), Atari's isometric 3D reworking of arcade classic *Gauntlet* represented a terribly missed opportunity. Update was choppy, progression sluggish, the control system unresponsive and the action simply confusing. About as far removed from the original game as possible, then...

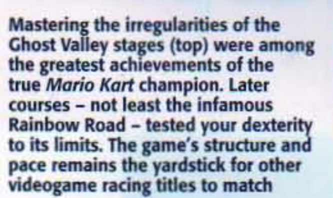


SUPER MARIO KART

It's a publisher's nightmare. Your game is so good it sets a precedent that cannot be bettered, even by a sequel. *Super Mario Kart* for the SNES was such a title, and it took the plumber right back to the top of the best-sellers list







Mastering the irregularities of the Ghost Valley stages (top) were among the greatest achievements of the true *Mario Kart* champion. Later courses – not least the infamous Rainbow Road – tested your dexterity to its limits. The game's structure and pace remains the yardstick for other videogame racing titles to match



At the time of its 1990 launch, one of the SNES's technical highlights was Mode 7, a hardware facet used for scaling and rotating sprites, powerfully demonstrated at launch by *F-Zero* (see *Retroview*, **E**62). This being Nintendo's party, it took Mario to get involved before the world sat up and took notice.

Released in Japan in 1992, *Super Mario Kart* was the ultimate definition of a sleeper-hit in the videogame world. Before release, both press and punters expected little of this curiosity, a racing game featuring Mario and chums belting about in go-karts. By the end of the SNES's reign, *Super Mario Kart* had become the system's number-one seller in Japan, outstripping even *Super Mario World* (outside of bundle deals).

It goes almost without saying that so many sceptics could never have been swayed without *SMK* being seriously good fun. It was that lack of sobriety tangled up in a thoroughly driveable racing game, which made the game so addictive. Here was a title that delivered dynamics of the highest standard, wrapped tightly in Nintendo's trademark gameplay structure. Progression was marked by new modes and tracks being unveiled: the satisfaction of completing the 150cc mode was only equalled by



the disappointment of there being no 200cc to play next.

Mastery of *SMK* could only be achieved through hours of intensive play, honing lines, taming drifts, and knowing exactly when to let loose the seek-and-destroy red shells. Rivalry between practitioners of the dark art of *Mario Kart* was often intense, the slightest slip-up certain to lose a race. The devious, twisting tracks left little room for error.

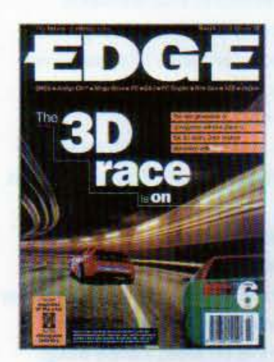
It was little surprise, then, that *Mario Kart 64* was one of the most overwhelmingly anticipated titles in the N64's catalogue. The disappointment of playing NCL's half-hearted '64' update can barely be expressed. Gone was the magic, the tight-knit perfection of another past Miyamoto classic. So those in the know – and therefore surely still in possession of a SNES – will agree that there remains only one truly classic *Kart* title, that of the *Super* variety.



Publisher: Nintendo	1992	Developer: In-house	SNES

EDGE VIEW

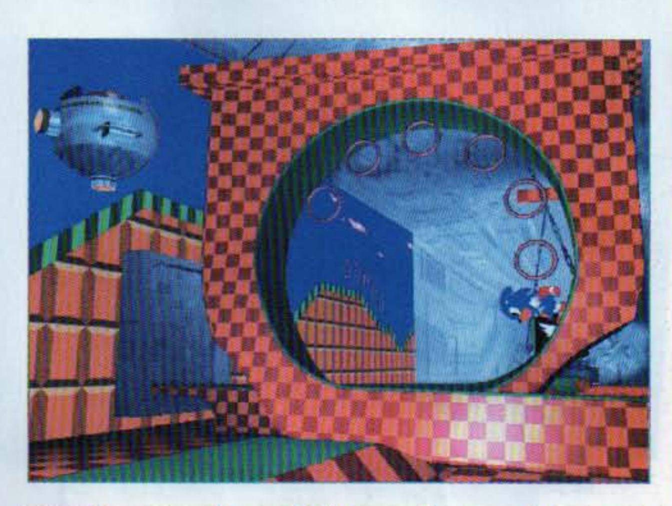
The videogames world never stands still, riding the breaking wave of advancing technology. In this regular column **Edge** puts the industry's progress in perspective with a look at yesteryear's headlines: five years ago this month



'The 3D race is on', declares the cover of issue six, with a shot from Namco's paradigm-shifting *Ridge Racer* clearly demonstrating what is to come. Inside, the coming 3D revolution is examined, illustrated with a slightly clairvoyant mock-up of Sonic 3D (right).

With eight months to go until the PlayStation and Saturn's Japanese release, the winter Consumer Electronics Show in Las Vegas gives Sega ample opportunity to flex its muscles. Rolling demos of *Daytona USA* and what was to become *Panzer Dragoon* wow attendees, while Silicon Graphics and Nintendo watch confidently from the nearby Project Reality stand. However, their undoubtedly impressive demos happen to be running on $100,000 Onyx2 workstations…

Meanwhile, Sony gathers UK developers at its London HQ to show off its new PS-X console. The PlayStation's now famous *T-Rex* demo makes its first appearance in the west, and one anonymous programmer notes, 'It's going to revolutionise the way computers are at the moment,' while others commented, 'Nothing can touch it.' And now with PlayStation 2 on the horizon, it seems Sony has come full circle.









The *T-Rex* demo opened and closed its mouth in realtime – and won the hearts of many. Initial PS-X sales targets were just three million…

Did they really say that?

Archer MacLean, pondering his future: "The taxman seems to think I'm a Columbian drugs baron, but basically I've played a straight bat."

Did Edge really say that?

'*Super Metroid* was Nintendo's other big new SNES game – the words 'barrel' and 'scraping' almost spring to mind.'

Testscreens (and ratings)

Ganbare Goeman 2 (SNES; nine), *Bomberman '94* (PC Engine; eight), *Total Eclipse* (3DO; seven), *Night Trap* (3DO; five), *Raiden* (Jaguar; five).

PIXEL PERFECT

Every gamer has occasional moments of sparkling excitement, be it the first time *Speedball* booted up, or completing *Sabrewulf*. High-profile gamers are no exception. Here, DMA's **David Jones** waxes lyrical about his "unbelievable" Amiga

"One of the strongest memories I have is when we connected up a couple of Amigas for the first time to try out multiplayer gaming. At this time is was through the serial port and therefore restricted to two machines. Then we tried out a couple of games that only supported two players through this link (no splitscreen stuff). These were Geoff Crammond's *Stunt Car Racer*, and *Populous* by some company I can't remember. Unbelievable fun.

To me this proved years ago how much fun it was playing another person rather than playing some artificial incompetence. These were, of course, great games even in singleplayer, but playing them in multiplayer mode put them into a league of their own. We played for about a week nonstop, and from then on I played *Populous* for about two years, once a week, in the evening. It set the scene for *Command and Conquer*…"





Dave Jones reflects on the impact of *Stunt Car Racer* and *Populous* (left) as multiplayer games





Sony KV-28FX6OU Wega 28-inch Widescreen TV

***£1,100 Contact: 0990 111999**

Eager to point out that not all widescreen tellies have to be inflated to Godzillean dimensions, Sony has released a new 28-inch flatscreen set. While this will be a dream come true for those who want to embrace the widescreen era but sadly find themselves living in a broom-cupboard-type flat, it must be said that the TV is nowhere near as impressive as its larger cousins, even looking a bit weedy when compared to your bog-standard 4:3.

On the plus side it does use Sony's tip-top Wega FD Trinitron tube to deliver a virtually flat screen devoid of annoying reflections, and offers vivid, crisp colours.

To handle non-widescreen television signals the Auto Format feature either slices a sliver off the top and bottom of the picture, or at times just sticks black bars either side, which isn't the most attractive way to watch television. Your collection of letterbox movies is handled by magnifying the picture so that it fits the screen, a simple enough idea but one that leads to a rather disappointingly grainy finish.

Despite these grievances, though, if you're chomping at the bit to play the likes of *GoldenEye* and *Turok 2* in widescreen, but are limited by space, you could do worse than invest in this compact and bijou TV.

Philips PCA645VC WEBCAM

***£92 Contact: 0181 665 6350**

Webcams seemed a fine idea when the world and his mistress were first discovering the World Wide Web. However, the joy of posting your own vox pop on the Internet was lost by the annoying fact that slow framerate led to you looking distinctly jerky, in every sense of the word.

Thankfully, the times are a changing, as more bandwidth becomes available and most folks' processor speed shoots sky high, all you need now is a user-friendly camera.

Enter Philips' bizarre little fella. Looking like something out of 'Terrahawks,' the Webcam's USB device is a delight to use. Plug it in and load up the drivers, and – so long as you're running *Windows 98* – you're ready to broadcast yourself around the globe in 24bit colour glory. With a satisfactory resolution of 176x144 you can shoot video at 24fps – anything better and the framerate will drop to 15 per second. This will still give you adequately smooth results, just don't expect vibrant colours; the camera will leave you looking washed out while the manual focus can cause blurring when capturing fast-moving objects.





* These are typical High Street prices; accurate at time of going to press. Manufacturers are no longer obliged to provide recommended retail prices on certain consumer electronics products.



Philips DTX 6370 Digital Terrestrial Receiver

*£200 (plus connection charge and subscription) Contact: 0171 819 8000

Until the dawn of digital television, anyone who wanted to get more than the basic five stations would have had to deface their home by installing a satellite dish – unless, of course they'd already had the inconvenience of having a cable company churning up their street. Now, thanks to On-digital, everything's changed. With this little Philips DTX 6370 decoder sat on your set, all you need is a TV aerial and hey presto – 30 channels at your disposal.

Setup is remarkably simple. Connect the box to your TV using either SCART or UHF cables, sit back for 20 minutes as it searches for the available channels, and then get flicking with the reasonably user-friendly remote control.

A couple of things annoy. Tall buildings can block the signal, leading to pixelated pictures. And in extreme situations, when the decoder is straining to receive the binary patterns, the image warps and the soundtrack breaks up just before the entire screen fades to black. Also note that using a battered old aerial can lead to the DTX 6370 failing to pick up certain channels.

Jabra EarSet

Contact: 01344 883399

If you've ever had to perform the juggling act that is talking on your mobile phone and negotiating a roundabout or scrabbling around for some paperwork, you'll understand the desire to have a third hand. This year will see a crop of hands-free headsets, enabling you to chat away while leaving your paws free to do anything your heart desires – but none will be as innovative as the Jabra EarSet.

Both the earpiece and microphone are contained in a colour gel which moulds itself to fit snugly in your ear. Unlike other earphones, the sound travels directly into the ear canal providing clarity, and is boosted by highly effective noise reduction technology.

The quality of the microphone is also surprisingly high, the only drawback being, perhaps, that your voice sounds slightly more distant than usual. Also, as the microphone is fixed, no matter how much you jig around the sound remains consistent.

While you'll probably never forget that you have the EarSet plugged into your ear, the gel is hardly uncomfortable and its moulded edges thankfully lack the rough feel of foam pads. A great little gadget and, interestingly, it's also available for PCs, Macs and consoles.

Edge has attempted to state prices wherever possible, but for up-to-the-minute information, check adverts in the national press or contact your local consumer electronics dealer.



A day at the races

You'll never see these in UK arcades, sadly, because of the strict gambling laws here. You can check them out in Europe, though

UK: Perusing the potent new technology at the recent ATEI show in London (see Arcadeview, p110), there's always a temptation to sample some of the more unusual devices on display. **Edge** couldn't resist.

The prize for most bizarre product at ATEI is always hotly contested, with several front runners to choose from. Leaving aside such wonders as Riley's bright orange American-spec pool tables (complete with Harley Davidson logo), and £1,000 babyfoot machines (serious stuff, apparently), a quick journey up the escalator to the International Casino Exhibition is a rewarding excursion.

Sega had a brace of massive automated horse-betting tables plus the largest, most complex dice-rolling game ever created, but **Edge**'s favourite was another horse game from an unheard-of manufacturer. This 20ft-long leviathan featured nothing less than six cameras placed around its track, to relay the 'live' action back to a 50-inch screen nearby. Punters were, understandably, impressed.

Back on the ATEI show floor, few could ignore the hopelessly inaccurate motion detector linked to a version of *Tekken 3*, or Namco's new shooting game (a PlayStation version seems unlikely).



Just what the coin-op industry's been gagging for – a dice-rolling simulator

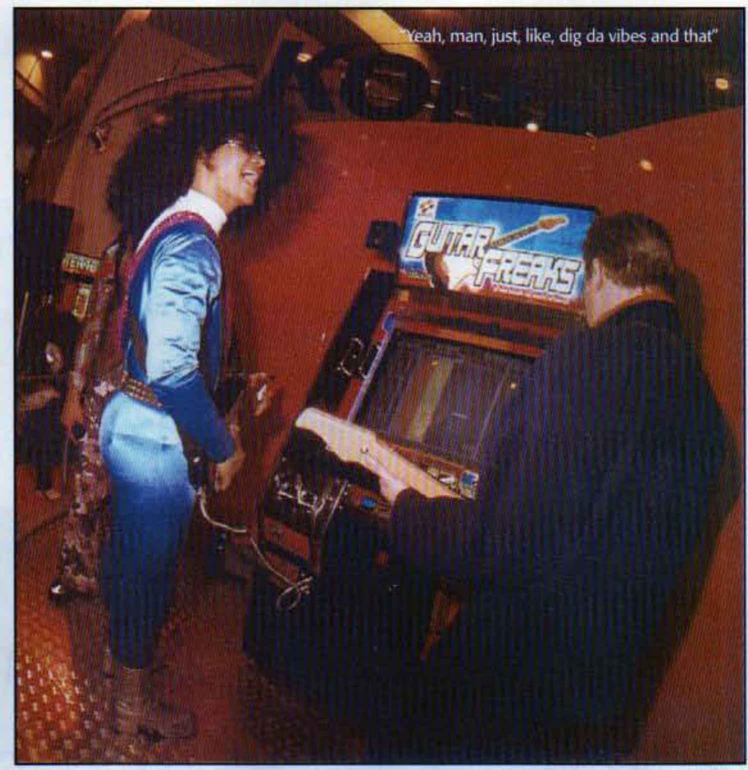
But the winner, and indeed the most fun, by several country miles had to be the motorised, revolving, and totally adjustable climbing wall (see opposite) hidden in a far corner of the show (an absolute snip at only £13,000) – if only because it gave two of **Edge**'s correspondents the most exercise they've had in years.



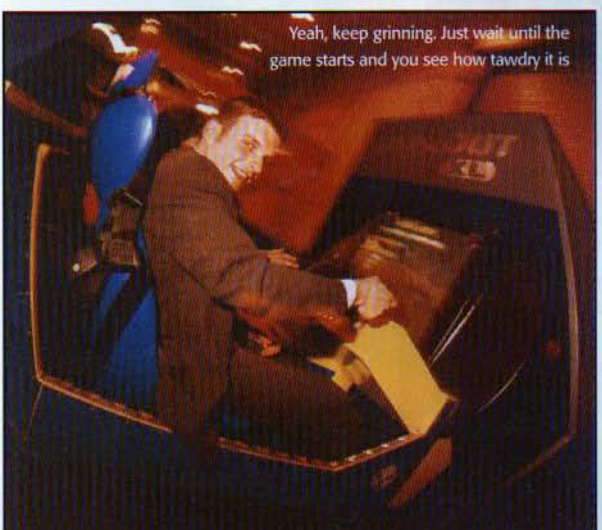




"Watch me and learn, kids… Hngh! No, don't punch, I'm *kicking*, you useless piece of crap…"



"Yeah, man, just, like, dig da vibes and that"



Yeah, keep grinning. Just wait until the game starts and you see how tawdry it is



Namco's *Pin Point Shot*. Coming soon to your local Earls Court-sized arcade



"GLADIATORS, READY!" Etcetera





Boxing clever





Japan: Whenever Japanese games turn up on **Edge**'s doorstep, the gulf that exists between packaging trends in the east and west becomes even further clarified. Glorious examples of the Nipponese approach exist in the form of two new Nintendo games – *All-Star Dai Rantou Smash Brothers* (top) and *Mario Party* (above), both reviewed this issue.

Heart beats

Japan: With *Parappa the Rapper*'s star proving one of the most likeable characters of 1998, many people will be surprised that the paper-thin hound doesn't appear in the sequel (see p29), having been replaced by guitar-wielding rock chick Um Jammer Lammy. But as a recent Japanese advert shows (below), Parappa himself appears far from bothered.

The ad opens with Parappa chilling out in front of his TV [1]. Suddenly his eye is caught by a lithe figure on screen [2]. It's Lammy. She winks cheekily at him and the little rapper immediately falls head over heels for her six-string ways [3]. Cut to Lammy and her band MilkCan, rocking on stage [4]. The advert ends with Parappa's face close against the screen [5].

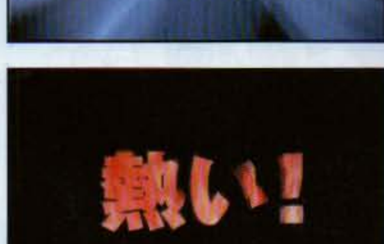
Small wonder previous love interest Sunny Funny doesn't make an appearance this time around.





















Jettisoning the hip hop theme for a rock style should pretty much guarantee a Bon Jovi revival, then

DataStream

Percentage of Japanese between the ages of 12 and 30 who own a mobile phone or beeper: **50%**
Number of email addresses software engineer Lin Hai sent to a Chinese pro-democracy publication based in the US: **30,000**
Length of time in prison Lin Hai was sentenced to by the Chinese authorities for 'undermining state power': **2 years**
Length of time it took US N64 owners to snap up 241,000 copies of *South Park*: **9 days**
Length of time it took US music fans to snap up 1,085,373 copies of Garth Brooks 'Double Live' album: **7 days**
Cost of a 30-second advert during the Super Bowl: **$1.6m**
Total revenue Fox expected to generate from its Super Bowl coverage: **$140m**
Total UK sales of *GoldenEye*: **540,000**
Total UK sales of *Super Mario 64*: **450,000**
Total UK ship-out of *Zelda: The Ocarina of Time*: **450,000**
Number of complaints received by the ITC (Independent Television Commission) concerning Nintendo's 'sexist' *Zelda* TV ad: **70**
Percentage of revenue Acclaim generated from Nintendo product in 1998: **60%**
Percentage of revenue that Acclaim generated from PlayStation product in 1998: **31%**
Forthcoming PlayStation titles planned by Acclaim: **0**
Price of shares in UK Internet games producer On-Line at the beginning of January: **12.5p**
Price of shares in On-Line on January 21: **273.5p**
Price of shares in On-Line on January 22: **129p**
Number of people employed in UK digital media: **21,000**
Predicted number of people employed in UK digital media by 2007: **100,000**
Percentage rise in Microsoft's quarterly annual earnings: **73%**
Percentage rise in IBM's annual earnings: **12%**
Out of 50 clubbers picked up by police leaving a London club, number carrying class-A drugs: **48**
Number of prescriptions written during 1997 in the US for anti-depressant drugs: **67m**





Small Metal jackets

US: Traditionally, plastic figures of videogame characters are utter tosh, often barely resembling their onscreen counterparts. Yet these *Metal Gear Solid* figures from US toy maker McFarlane (around $10 each) have shocked the plastic toy world by daring to be surprisingly good representations of their polygonal equivalents. Each of the eight-strong line-up (Solid, Vulcan Raven and Cyborg Ninja are shown below) comes complete with accessories and is impressively detailed.

How much value the blessed things actually have once you get them home can only be guessed at, though.







Square goes soft

UK: Square may have started work on *Final Fantasy* the movie (**E**68), but the UK release of *Final Fantasy Volumes I* and *II* anime-style is purely for fun. Tentatively 'based on the multi-million selling game,' the animations follow the adventures of Prettz and Linaly as they battle to save Planet R from the Lord of Darkness and Oblivion. Thankfully, light relief is provided by Rouge and her leather-clad army of female pirates.

Interested parties will note that Square's Hironobu Sakaguchi is credited as co-production supervisor. Everyone else might well fall around laughing at the senselessness of it all.







The *Final Fantasy* bandwagon wheels continue to be greased by these dubious anime offerings

PC behaviour

Japan: Sega has made its Dreamcast VGA monitor adaptor available, and **Edge** understandably made sure that one of the first off the production line was shipped direct from Akihabara to Bath. In some ways similar to Sony's multiout PlayStation adaptor, the VGA box comes with A/V outputs to a variety of connections, from composite to 3.5mm stereo jack. However, the real story is the unit's monitor socket.

So what's it like? Well, the first striking aspect is the richness of the colours onscreen, thanks to the true RGB signal. The second is how much the 128bit machine's visuals immediately assume a PC-esque feel, due to super-crisp edges. On a 17-inch monitor, it's a definite improvement over S-Video, albeit a slightly disconcerting experience – particularly during Sega Rally 2's boot sequence during which the *Windows CE* logo appears. Anyone for a Sega PC?



Turn your DC into a PC with one itty-bitty black box

Baby boom

UK: *The Daily Mail*, Fleet Street's guardian of all things good and true, has discovered what could be the world's youngest hardcore gamer – two-year-old Samuel Simpson, an N64 addict whose favourite title is *GoldenEye*.

"It means total peace for us," said his mother, who allows the nipper to spend up to ten hours at a time hammering away at the console. Looking at the *Mail*'s photos, however, it's clear that, despite his apparent addiction, the wee chap's hands simply aren't big enough to handle an N64 pad properly, making playing *GoldenEye* some challenge. Surely there's a market niche awaiting Nintendo here…

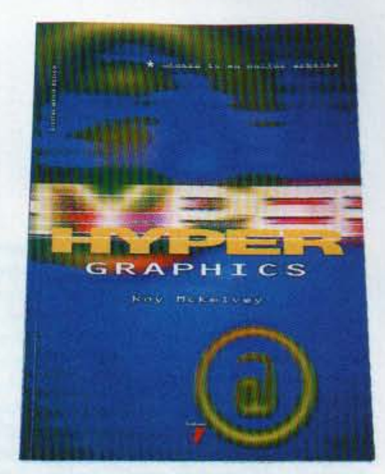


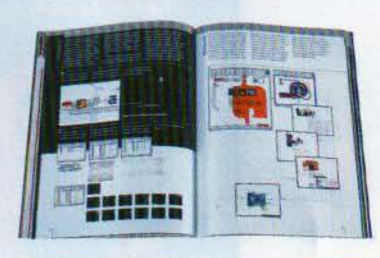
And there you were, wondering where other multiformat mags get their staff from…

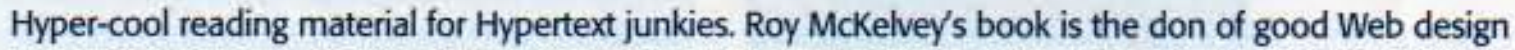
Weaving a neat Web

UK: With the current vogue for stuffing Websites with memory-heavy eye candy, there should be a ready market for the cool pragmatism of Roy McKelvey's book 'Hyper Graphics'. His first rule of Web design is, 'Everything starts with bandwidth – nothing will drive visitors away faster than a sluggish site.' And considering that over half of surfers don't enter sites that take over 15 seconds to download, it's a valuable mantra.

As well as understanding the fundamentals of Web design, the book avoids getting bogged down in the technical intricacies of HTML, preferring to encourage designers towards quality thinking not technical shortcuts. The second half of the book focuses on 11 good examples, including Audi, Carnegie Hall, Microsoft's notorious Slate magazine, and the Discovery Channel. For more information, visit http://www.vcu.edu/artweb/Hypergraphics.







Hyper-cool reading material for Hypertext junkies. Roy McKelvey's book is the don of good Web design

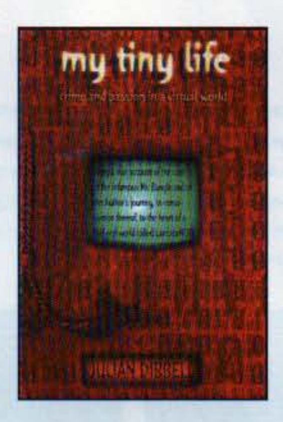




MY TINY LIFE

In the beginning there were Dungeons, although some people called them Domains. And they were the start of online gaming, of leaving the real world behind. Some ten years later, *Village Voice* writer Julian Dibbell gets involved in one of the most famous worlds, LambdaMOO. Surprised by its level of emotional attachment and depth of history, he decides to go undercover in the best traditions of journalism and write a book. He logs his increasingly infrequent periods of real life (RL) in MUD-style language: 'Bedroom: You are in a small room… The_Author and The_Author's_Girlfriend are present'. In contrast, the expanding virtual life (VL) passages are written in normal prose form.

Surprisingly, it is a slightly underwhelming read. Yet there's something uncomplicated about Dibbell's attempts to pin down the slippery form of this new media. *My Tiny Life* manages to express the feeling of living in between that seems to be the norm for the digital generation.

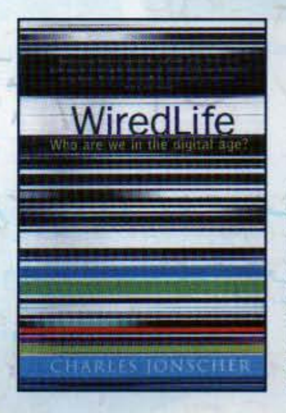


Author: Julian Dibbell
Publisher: 4th Estate
ISBN: 1-84115-058-4

WIREDLIFE

Edge has started to wonder if *any* of MIT's staff has failed to write a book on the future direction of the world. Thankfully, the latest addition from Charles Jonscher, co-director of the Research Programme on Communications, has fulfiled the small print, while producing a thoughtful precis on the impact of the computer.

Jonscher is obviously unimpressed with the future-shock school of divination. As he points out, computers excel at dealing with a narrow band of human activities; notably those that can be defined within the alphanumeric set of ten numbers and 26 letters. For example, the only surprise when Deep Blue beat chess grandmaster Gary Kasparov was that it had taken programmers so long to deal with a basic number-crunching problem. And while little of the content of *WiredLife* is new, it does possess a certain clarity, bringing simplicity to arguments that are too often shrouded in technical language. Jonscher also manages to take the heat out of many of the more controversial issues, such as AI and the Genome Project, placing them within a broader environment. Subtitled 'Who are we in the digital age?' the answer would seem to be: the same as we have always been, only now we have grey boxes on our desktops.



Author: Charles Jonscher
Publisher: Bantam
ISBN: 0593 043154



MODEL 500
Mind and Body
(R&S)

Model 500's Jaun Atkins is one of Detroit's holy trinity of techno pioneers, so it comes as no surprise to find him ploughing deep electronic grooves on the second album under this moniker. Aside from the historical aspect, it's Atkins' ability to infuse his music with the very best influences that marks him out for special attention; using hip hop and funk he builds a soulful yet pristine sound. Minimalism rarely sounds so welcoming.




BINARY
Brickwall Music
(Planet Noisebox)

Hitting any available bit of metal or household appliance to create beats is nothing new, but with 'Brickwall Music' Binary's Mark Crumby has managed to build something that, in a very real sense, is much more than the sum of its parts. The absence of synthesisers or even drum machines hasn't stopped Binary from crafting some surprisingly complex and dense tracks, creating a drum'n'bass-flavoured trip through an impressive range of moods. It's impressive what can be achieved with a few bits of scrap and a sampler.



CASSIUS
1999
(Virgin)

The name is new, but the artists will be familiar to anyone keeping tabs on the French dance scene. Cassius are Phillipe Zdar and Boombass, the duo previously having worked as La Funk Mob, and handled production duties for MC Solaar. Slinky and bass-heavy enough to please the disco brigade, '1999' also possesses enough individual style and swagger to make it just as appealing to the tech-heads. One of the soundtrack records for the year, no question.



DVD
Armageddon
(Warner Home Video)
£16

There are two things that 'Armageddon' will be remembered for – outstanding special effects and some of the most banal dialogue in Hollywood history. And, fittingly, there are two things that DVD owners are likely to recall when asked about this UK (Region 2) release – technical superlativeness (both in audio and visual terms), and the fact that it's the first DVD to share a simultaneous release alongside the rental version. This move should not be underestimated, and is possibly the new digital format's best strategy towards its mainstream-status ambition.

Still, 'Armageddon' is harmless fun. Its premise is probably one of the most outrageous ever to make it on to celluloid, but the effects are likely to divert your attention away from the implausible plot. On DVD, the crisp image further highlights Digital Domain's FX-production ability, although widescreen TV owners are likely to frown at the lack of an anamorphic transfer. No such complaints regarding the Dolby Digital mix, however, which delivers a convincing and bass-rich sound stage which is sure to get the neighbours complaining.



VIEWPOINT

EXPRESS YOURSELF IN **EDGE** – WRITE TO: LETTERS, **EDGE**, 30 MONMOUTH STREET, BATH, BA1 2BW (email: edge@futurenet.co.uk)

With regard to your article on *Quake III: Arena* (**E**68), it was about time someone clarified what it is id is attempting to do. When id announced *Quake III*, it was met with moans and groans from gamers and criticism from some areas of the games press, because everyone could only think of firstperson shoot 'em ups in terms of *Half-Life* or *GoldenEye*. Calling *Half-Life* and *Quake III* firstperson shooters is like calling *Tomb Raider* and *Ocarina of Time* thirdperson adventures when they clearly do not belong to the same genre.

TOCA Touring Car players don't complain about not being able to save the world in a Volvo S40, and *FIFA* players don't moan because they can't choose what Ronaldo does in his spare time. That's because this isn't what the games set out to do – and neither does *Quake III*. Some games don't intend to have you saving the world or immersing yourself in a heavily plotted story but rather provide the quick thrills and competitive addiction of a football game or beat 'em up.

Everyone knows that playing a racing game or football game against a friend is most fun, but we all still enjoy the singleplayer mode. If id can pull off the level of artificial intelligence it is striving for, *Quake III* would well be more enjoyable than any *ISS*, *Tekken* or *TOCA*.

I myself have never had the opportunity to play against someone else in a firstperson shoot 'em up, and I absolutely love *Half-Life* and *GoldenEye*, but I can appreciate what id is attempting to do and feel it should be applauded for having the guts to try something new and revolutionary in an overly cluttered and stale genre.

One final point: *Speedball*'s developers tried to create the futuristic sports game for the 21st Century, but *Quake III: Arena* could just be it.

Mikey Foley,
London

'I can **appreciate what id is attempting to do** and feel it should be applauded for having the **guts to try something new** and revolutionary in an overly cluttered and **stale genre**'

I wrote one of the anti-Mac rebuffs several issues ago, but this time I hope it succeeds. But watch this familiar pattern – "The iMac will become the games platform of choice," says Svengali Steve Jobs, before screwing his first iMac buyers by upgrading the video hardware within *three months* of the machine's launch, then again for a new video chip (and not just a 4Mb update that was already possible), and now for a faster chip and different colours (though nothing about larger screen sizes). That leaves a dealer with 20 to 30 original iMacs to shift with a paltry price cut.

This is all, of course, assuming they could meet the demand for the newly announced models – which only direct dealers can. Once again Apple threatens to alienate the people who may give them a wider sales base. And apart from the iMac there's yet more processor-only marketing (if you can't beat Intel on sales, ridicule it then copy it). Apple should be happy about the discounting; if I can upgrade two PCs in one year for less than the price of one iMac, you've lost me already, especially at the inflated prices of the mainstream PowerMac range.

Kenneth Henry,
via email



Should gamers concentrate on what a game is attempting to do, rather than having skewed expectations of it? Yes, says Mikey Foley, who praises *QIII*'s clear intentions

As a South East Asian, I have personally witnessed a strange paradox in the videogames sector at home. As you may know, this region is the hotbed of software piracy, with the majority of console users buying only pirated games (for as little as £2 per title). The PlayStation is the overall favourite, as its range of pirated software is the largest and cheapest.

Thus, the cost of videogaming is very low. The average gamer need only pick up a PlayStation, get the retailer to remove the lockout chips and then he is set for a lifetime of cheap videogaming. The casual user can accumulate up to 50 games in a year, without even needing to sacrifice any lunch money. For the most part, Asians are unconcerned with the moral implications of supporting software pirates, as long as they get the games cheap.

I believe it is this that led to huge PlayStation sales in Asia. If this much is true, SCE would not be too concerned about stopping piracy. At the 'small' expense of potential overseas thirdparty software revenues, SCE could sell a lot more PlayStations with the unspoken promise of ultra-cheap illegal games. SCE can then more than offset its rampant piracy problem by signing in more developers, using its 'piracy-contributed' PlayStation market share figure as the main attraction.

With this logic in mind, I could say that the N64 and perhaps the Dreamcast may never reach the dizzying heights of the PlayStation, given their respective proprietary storage formats that make illegal duplication more costly.

Ng Jen Soon,
Kuala Lumpur

P.S. Is this letter so controversial that **Edge** can't display it in Viewpoint?
No, although it's some way up there on **Edge**'s Unusual-O-Meter™.

In response to **E**68's driving game feature, I question the meaning of 'realism'.

The Prost anecdote was excellent of course, but very few gamers ever get to sample the 'real thing'. While a gamer can ascertain whether or not a game is fun by playing it, their impression of its 'realism', though grounded largely in hype, has become a primary criterion of game quality.

Namco's *Ridge Racer* is frequently held up as epitomising a luddite approach to physics, yet on its PS debut in '94 **Edge** hailed it as something of a simulation, placing its arcade parent alongside *Hard Drivin'* (presumably on account of its optional six-speed shift). The original *Ridge Racer* enabled its pilot to drift through a corner 270 degrees backwards (to little cost), and awarded 'extra' revs on gaining traction at a specific angle (advanced lap times necessitated it). Though slightly less imaginatively, **Edge**'s recent driving feature paid tribute to the 'realistic' attributes of *Daytona*. The application of such terms is therefore a very variable one.

Yet 'realism' is so rarely what we get today. Even *TOCA* and *GT* fail to translate precisely and evenly every twist of a NegCon at every speed, largely because of the gamer's need for assistance with fiddly Dual Shock nipples. Furthermore, the JogCon's oversight of analogue throttle/brake input represents a significant step backwards. I fail to understand the value of software capable of discerning torque settings when the game itself regulates pedal application and most steering. Of course, *Gran Turismo* has wonderfully intuitive digital control, but the arrival of the 3D age and NegCon compatibility has allowed us to surpass even the digital benchmark – SNES *Mario Kart*.

Matthew Stedman,
York

Perhaps you should try Dreamcast *Sega Rally 2*, whose default control method assigns brake and accelerator controls to the triggers, both of which are analogue.

Regarding Craig's letter about the merits of 2D over 3D (**E**68), a friend recently raved to me about the amazing graphics in *Unreal*. When he showed them to me I was indeed impressed by the 3D engine but felt the graphics weren't as good as *Street Fighter* or *Castlevania*. It's not just *Unreal* – I simply prefer the sharper graphics 2D can offer. In fact I firmly maintain that *Legend Of Zelda: A Link to the Past* has the best graphics of all time! It's just the style, man...

Euan Mackenzie,
via email

'Mike Sherlock's attempt to **stifle the import Dreamcast market** is another typical example of blinkered, Philistine, **pig-ignorant corporate suits** who wander around with dollar signs in their eyes'

And you used to be able to go to the cinema, have three pints of pale ale, get some chips on the way home, and *still* have change left from £1...

Mike Sherlock's attempt to stifle the import Dreamcast market (News, **E**68) is another typical example of blinkered, Philistine, pig-ignorant corporate suits who wander around with dollar signs in their eyes and no brains in their head. I am a hardcore gamer and have bought Japanese and US PlayStations, Saturns, N64s and Dreamcasts. Why? Because I want to play the best now, not in 12 months' time, and not in slow, bordered PAL mode either.

The importer was right: no serious gamer would dream of bothering Sega in the UK about an import machine. I've had my Dreamcast since November and at least five of my son's friends have expressed an interest in buying one since seeing it – so where's my ten per cent commission for advertising? You want to stop imports? Then do the following:
a) Ensure that your machine is released simultaneously worldwide
b) Release all games worldwide
Oh, and by the way, what ever happened to freedom of choice?

David Bassett,
via email

Releasing absolutely every game created for a Japanese console outside of its home territory makes little sense – who in the UK, for example, would be interested in something like Taito's *Densha de Go!* (aka *Let's Go By Train!*) series for the PlayStation?

In terms of simultaneous cross-territory releases, attitudes *are* changing, although not as quickly as most gamers would hope. The vast amount of hard cash involved certainly hampers the progress.

Ultimately, hardcore gamers are still a crucial sector of the overall market, which is why **Edge** will continue to deliver news, previews and reviews of hardware and software irrespective of the country of origin or any anti-import attitudes of its manufacturers.

I'm a Net Yaroze member and would like to get in touch with a 2D artist to get involved in my Net Yaroze project. The work would involve main character design, tile design and map layout; if anyone is interested, could they let me have a Website URL or other examples of their work? (I would rather not receive large emails if possible.)

I'm also involved with another project – this one in 3D – and we're looking to locate an artist for it. We're not too worried about the software used, whether it's *Lightwave*, *Maya*, *Softimage* or *3D Studio Max*, but the artist would need to be able to texture the models sparingly (as we don't have much space on the Yaroze).

Thank you for your attention.

Nigel Critten,
nigel@gameware.demon.co.uk

Guys, you have to wake up. Shinobi *is* better than the shallow running around of *Ninja*. *Mr Heli is* far better than *Einhänder*.

Vertigo,
via email

Er, it was supposed to be a little joke. Sorry. Won't happen again.

You ought to lighten up about that 'sexy' *Tomb Raider* advert (Out There, **E**67). After all, if I had that man in my bed that's exactly what I'd want him to be wearing...

Mark Lee,
London

Whatever floats your boat, Mark.



Exposed next month.

The most hotly anticipated piece of gaming hardware of all time.

ISSUE SEVENTY

ON SALE MARCH 23




Future
Your Guarantee
Of Value


9 771350 159014
03